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ORIGINAL COMMUNICATIONS.

Clinical Notes from Private Practice. By GEORGE L. UPSHUR, M. D., of Norfolk, Va., Member of the American Medical Association.

Dysentery and Miasmatic Fever.—J. S., shoemaker, of sanguineous, lymphatic temperament, aged 28, married, was exposed to a heavy rain on the 8th of July, 1848, and got thoroughly wet. Was seized two days after with chill followed by dysentery—the discharges from the bowels amounting to ten in as many hours, and consisting almost entirely of blood. There was not much fever, but distressing tenesmus. I saw him on the 11th. He had taken a dose of castor oil the day before. Prescribed Hope's mixture, (Nitrous Acid ℥i., Tr. Op. gtt. xl., Aq. Camph. ℥viii)—afterwards Ol. Ricini and Tr. Op.—then sulphate of copper and opium, but with little or no abatement in the symptoms. Ten days after the commencement of the attack, he told me he thought he had had every afternoon, for several days past, a slight aching of the limbs and chilliness, and then he suffered most from his bowels. Prescribed Calomel gr. vi., Quiniæ Sulph. gr. xx., Morph. Sulph. gr. ½. M.

Pil. 8. S. one pill every two hours. Two days after, all the symptoms were improved, and he convalesced rapidly.

Remarks.—This case is a very good type of what we often meet with in lower Virginia. Persons are attacked by disease which seems to be purely local in its character, and is treated as such, but without much improvement. Upon a close examination, it will be discovered that the patient is much more unwell at one period of the day than at another—that he is more thirsty, and has some general aching of the limbs, which cannot be accounted for by the local disease. These symptoms are due to malarious influence—in other words, they are symptoms of ague. Under such circumstances you may treat the local disease *for ever*, without success. But if you will give the quinine freely, the local symptoms will disappear without further attention. I have seen this view frequently illustrated in this city during the summer and autumn. In fact, we rarely see an acute local disease that is not warped by this miasmatic agent.

Typhoid Fever.—This form of fever is rare in this section of country; so rare, that until the summer of 1848, I was disposed to doubt its existence here at all. I allude now, not to remittent fever which, sometimes runs into the typhoid or ataxic form, but to the true typhoid fever, or *dothinenterite*, of Louis and other French authors. Last summer I treated five well marked cases of this disease, and have seen three others since the first of last June. The rose-colored spots were found in five, epistaxis in one, and diarrhœa in all. The premonitory symptoms usually lasted ten days, and the disease was ushered in by rigors, followed by a tolerably high grade of fever, accompanied by headache and drowsiness. In one case, the gravest of all, the tongue remained *perfectly natural* throughout the disease. In every case there was a strong tendency to prostration. This want of energy was particularly noticed in the brain, in the form of drowsiness, low spirits, and listlessness, a condition of the great sensorium which it was extremely difficult to diagnose from that congestion of the brain, so often observed in typhoid and typhus fevers—especially as there was some heat of head and a flushed face during sleep. A stimulant such as Tr. Ammon. Arom. would arouse the patient in a few moments, and, so far from exciting the circulation, allayed it in a measure. The

pulse, in every case, was very frequent, ranging from 110 to 130 per minute. This frequency of pulse continued some days, after all other unpleasant symptoms had disappeared, so that as long as it lasted, I felt sure the disease had not run its course, although the patient felt better;—and I could invariably predict, three or four days in advance, the approaching convalescence, simply from a lessening in the frequency of the pulse. The average duration of the disease was 21 days—the shortest being 15, and the longest 42 days.

The treatment consisted essentially of tonics from the very commencement—Tr. Cinchon. c., with small doses of quinine, alternating with port wine and wine of quassia, and now and then, in the latter stage of the disease, Dover's powder at night. The diarrhœa, in the earlier stage, was relieved by rhubarb and blue mass in small and frequently repeated doses, but would frequently recur towards the end of the second week, when strong astringents were called for. Of the eight cases, one died on the 42d day, being permitted to sink for want of proper attention on the part of the nurses.

Remarks.—Something useful may be deduced by us who practice in a malarious region, from a close study of such cases as those just alluded to. 1st. When a case is "beating up" for ten or twelve days, there being general malaise, whimsical appetite and unrefreshing sleep, it, in a majority of cases, turns out to be a case of typhoid fever. Therefore, when the patient takes to his bed and the doctor is sent for, he should be cautious not to prognosticate either a speedy or certain recovery. This caution is the more necessary in this region, where we are called to treat fevers chiefly of miasmatic origin, which are entirely amenable to proper treatment.

2nd. Do not use purgatives too freely. A drastic cathartic in the commencement of typhoid fever often complicates the whole subsequent treatment, by *fixing* the already strong tendency to the bowels, and thus starting a very ugly train of nervous symptoms.

3d. Do not become impatient at the length of time the fever lasts. These fevers seem to have a certain course to run—seldom less than 15 days—and it is therefore vain to attempt to *physic them* out of the system. All we can do is to watch symptoms—especially ataxic symptoms—which so frequently result from debility, and by treating them promptly and properly, ward off "the tendency

to death." No man was ever in a better condition for having his stomach converted into an apothecary store. The most important thing to be learned in the practice of medicine, I believe, is, to know when *not* to give physic—*when* to let *well enough* alone. It must be confessed, however, that the *vis medicatrix naturæ* is too often, in the language of an eminent physician, "turned out of the room like a noisy cat." Homœopathy and Thompsonianism have taught the scientific physician two useful lessons; first, how often Nature is able to withstand the *disease;* and second, how often she is able to withstand the *doctor*. Typhoid fever, it must be remembered, is frequently as whimsical as a spoilt child, and requires fully as much *coaxing*.

Laceration of the Perinæum.—Mrs. W ——, aged 32, of rigid fibre, was taken in labor with her first child, Sept. 6th, 1848. Saw her at 4 o'clock, A. M.—she had been suffering considerable pain since twelve the day before. Vertex presented in the 3d position of Baudelocque. At 10 o'clock was seized with pain across the forehead—stared wildly about—pulse labored, and only 52—pains active and recurring regularly every six minutes. Took twenty ounces of blood from the arm with entire relief to the head. At three o'clock, os uteri well dilated, but os externum and adjacent parts indisposed to yield; pains strong and frequent, but scarcely any progress made. I was called away at this time—returned in an hour—found the child expelled just as I entered the room, and the perinæum badly lacerated; I could not ascertain precisely to what extent, without an ocular examination, but from the touch I judged that it extended to the verge of the anus. The placenta was adherent to the right side of the uterus, about five inches from the os, and was delivered with difficulty.

The patient was directed to lie upon the side with the legs closed. On the 30th of September, the wound, not having been troubled in the mean time, was found to have healed by *first intention*. I was surprised at so favorable a result, especially as the patient, contrary to my directions, was out of bed on the third day.

Prolapsus ani cured by operation.—This is the case of a child two years old. The prolapsus, the result of cholera infantum, had existed two months. The mucous membrane was protruded four

inches, livid and excoriated in several places. Having returned it with some difficulty, an assistant retained it by pressing his finger firmly upon one margin of the anus, while I clipped out with the scissors five of the radiating folds of skin, the incisions being carried a little over the inner margin of the anus. There was no hemorrhage of importance, and such was the stimulus given to the sphincter by the cuts, that the bowel was immediately kept up without pressure. For this operation, as beautiful as it is simple, we are indebted to the genius of the celebrated Dupuytren. It is proper to state, that, prior to the operation, all the usual means of relief, such as a compress retained by a T bandage, astringent injections, &c., had been resorted to, but without success.

Variola and Vaccine.—Small pox prevailed in this city to a considerable extent during the first three months of this year. In the house where I saw my first case, was a mother with an infant four months old, both unprotected by vaccination. I vaccinated them with some very active virus, and on the eighth day, when the vesicle was fully formed, I directed them both to be carried into the room where the patient with small pox was lying, then the eighth day from the appearance of the eruption. From that day, both mother and child were freely exposed to the infection, and both escaped without the slightest indisposition. The grandfather of the infant, who had been inoculated thirty years before, and had the variolous disease fully, as shown by marks upon his person, had varioloid severely, as did five of his children who had had varioloid some years before, not one in the family escaping the disease except the grandmother and the mother and child before mentioned. This would seem to prove that *fresh* vaccination is a better prophylactic than *old* small pox.

My second case of variola occurred in the person of a negro, who was seized with a chill on Sunday, and broke out on the following Wednesday. I saw her for the first time on Friday; the eruption was then just passing from the papular into the vesicular stage. Her child, three years old, had been sleeping with her from the beginning of her sickness. I immediately vaccinated it upon the left arm in two places. Ten days after, and when the mother was convalescing, there was no trace of the punctures upon the child's arm. I vaccinated her again in the right arm. A week

after this the child was seized with all the symptoms of small pox Upon examining the arms, I found that upon the *left* one were two vaccine vesicles. The case turned out to be one of very mild varioloid.

I saw another case, in the practice of Dr. Tunstall, which had been very freely exposed to the variolous infection, and in whose system the vaccine virus lingered for fourteen days without manifesting itself locally. It at length made its appearance simultaneously with the variolous disease, and seemed so to modify it as to make the case one of mild varioloid.

I treated all the cases I had under my care with a purgative, now and then, of calomel and rhubarb, and a solution of nitrate of potassa during the high febrile stage. The fact frequently mentioned in the books, particularly struck me, viz: that the initiatory symptoms of varioloid are fully as severe as those of confluent small pox.

Since the 15th of January, I have vaccinated 179 persons, of which 40 were *re*-vaccinations. Of these last, 34, or about 75 per cent., took the disease a second time. The susceptibility in some cases to the disease, a second and even a third time, is singular. In 1846 I vaccinated a little girl, with success—in '47 repeated the operation, with the same result—in '48 vacccinated her again, and she again took the disease. Last spring, upon trying it again, no impression was produced even locally. She has a brother and a sister, who have each had the vaccine disease perfectly, twice. The scars from the last operation are just as distinct and characteristic as from the first.

Presentation of the Shoulder.—April 16th, 1849, was called to see a negro woman, about two miles from the city. She had been in labor since the 10th, although the pains were not active until 48 hours before I saw her. The waters were discharged on the 15th, in the morning. The patient was 20 years old, well formed, and had had one child. Upon making an examination, I found the hand and arm in the vagina, and the os uteri considerably dilated, soft and yielding; pains feeble and irregular. Having determined upon version by the feet, the bladder and rectum being emptied, I bled her to sixteen ounces, and administered 80 drops of Tr. Opii. I passed my hand readily into the uterus, and in so

doing carried up the hand of the child with it. It was the right arm that was down, and the head was in the left iliac fossa, the face being towards the back of the mother. I found the feet without difficulty, but the waters had been discharged so long, and the tonic contraction of the uterus was so great, that I hesitated to perform the evolution, for fear of doing irreparable injury to that organ. Under these circumstances, I determined to try version by the vertex. The arm being already returned into the uterus, I could more easily seize the vertex, which I succeeded in doing, and brought it into the axis of the superior strait in the first position. I then withdrew my hand, and the pains having ceased almost entirely, I left the patient for two hours. Upon my return, found more active contractions, and the chord prolapsed. Attempted several times to return it, but in vain, for the head pressed too firmly against the pelvic brim to allow it to pass. The child was delivered in four hours from the time I returned. The labor was protracted by very great posterior obliquity of the uterus, which threw the head of the child strongly against the pubis. This was obviated, in some degree, by pressing firmly upon the hypogastrium during each pain.

I observed another difficulty in this case, which I had never met with before, and which, though seemingly a trifle, embarrassed me a good deal: when the hand was introduced into the vagina, there was produced in the palm so complete a vacuum, that I found it next to impossible to separate my thumb from the fingers; nor could I get along at all, until I let the air in with the forefinger of my left hand. The child, when born, had been dead about ten hours; the mother did well.

Hour-glass Contraction and retained Placenta.—Mrs. S., æt. 30, was taken in labor with her first child, April 26th, the pains being very slight until the 28th. Waters were discharged on the 27th. First position of the vertex, and the child was delivered the next day at 5 o'clock, P. M. Waited 20 minutes for the expulsion of the placenta, but finding little or no effort to throw it off, I introduced my hand for the purpose of bringing it away, having first made gentle traction upon the chord. I was distressed to find a complete hour glass contraction of the uterus, and the placenta shut in above the constriction. Having placed my fingers together

in a conical form, I slowly and cautiously proceeded to overcome the difficulty, which required both time and patience. My hand at length passed into the upper chamber, when I found the placenta adherent to the fundus uteri. It was detached with great difficulty, being peeled off with the fingers just as the butcher peels the leaf-fat from the inside of the hog. As the placenta came away, the uterus contracted firmly. I had frequently seen irregular contractions of the uterus, but never before a perfect hour-glass contraction. This state of that organ has by many been considered as impossible.

(To be concluded in next No.)

Two Cases of Metastatic Abscesses following Surgical Operations, in the service of Mons. Roux, *Hotel Dieu, Paris.* Reported for the Medical Examiner, by J. H. Weir, M. D., Philada.

Julien, 21 years of age, received a blow on the frontal region by falling against the corner of a door. Entered Hospital St. Antoine, where he remained eight days. No symptoms of concussion or compression of the brain after the accident. The small wound cicatrized rapidly. Six days after leaving the hospital, an abscess formed at the lower part of the cicatrix, which was opened with a bistoury. Patient then entered Hotel Dieu, April 30th.

April 30th. Abscess situated on a level with the frontal protuberance, one inch in length, and half an inch in breadth. Suppurates freely; the bone is bare; fever intense; little appetite; ordered simple dressings; absolute diet. After the lapse of four days the fever declined, and at the expiration of the eleventh day, had ceased. The pus was of a good quality; the integuments surrounding the wound were not inflamed; appetite good.

On the night of the 7th, the dressings of the wound became detached, so that the wound was exposed to the air during six or seven hours. A short time afterwards, the patient was taken with a chill; dry heat of skin; vomiting of bilious matter; pain between the shoulders.

May 8th. Vomiting still continues; the patient is in a very low state; pulse small and frequent; skin hot and dry; the pain between the shoulder has augmented. On percussion, dull sound at the

base of right lung; respiratory murmur absent at that point Pleurisy diagnosed with symptoms of purulent infection.

Ordered Tart. Emet. grs. iij.

May 9th. A severe pain felt in the region of the liver; excessive prostration. *The wound is dry.* Ordered blister to-night; hypochondrium.

May 10th. Same state of prostration; pulse very small; severe pains in the region of the liver; laborious cough; diarrhœa, icteric tinge of the skin.

May 11th. Same state. Death at 12 M.

Autopsy. An icteric tinge over the whole body; the wound of the forehead is enlarged, and the periosteum detached; no fracture of cranium; surface of coronal suture is rugose and bathed in pus. On examination of the internal face of the bone, it is found to be denuded; its greyish color, its rugosities, show that there has been effusion of pus from the external to the internal surface. The dura mater beneath the wound is of a blackish color, slightly softened and soaked in pus; no false membranes above the arachnoid; slight injection of the surface of the brain; the cerebral substance is of a normal consistence and color.

Pleurisy of the right side with exudation of a turbid liquid. Pseudo membrane enveloping the lower lobe of right lung;—underneath this membrane, several superficial *metastatic* abscesses; no induration of lung; some metastatic abscesses in left lung; liver healthy. In the interior of the spleen, three metastatic abscesses; one in suppuration. Stomach and intestines healthy. Jugular veins and the sinuses of the dura mater contain some black clots slightly consistent, without traces of pus.

Case of Stricture of the Urethra—Forced Catheterism—Purulent Infection—Death.

In bed No. 5 is a man who entered the hospital for a stricture of the urethra, 20th November. The immediate cause of his entry was a retention of urine, which had lasted fourteen hours.

The stricture is of six years standing, having followed an attack of gonorrhœa, which had been allowed to take its own course without any treatment. The stricture is seated at the commencement of the prostatic portion of the urethra, and is excessively

firm ; the patient has been accustomed to use bougies for a number of years, and it was not till he found it impossible to overcome the obstruction, that he determined to apply for surgical advice.

M. Roux made use of the conical silver catheter introduced into notice by Boyer. The first attempt was unsuccessful. A false passage existed on the right side of the urethra, apparently running into the prostate. An hour after the first trial, Mr. Roux succeeded in introducing the catheter, not without difficulty, and the employment of much force. Nearly a quart of urine flowed through the catheter, and the instrument was left *in situ* for twenty-four hours. During this time the patient suffered extremely, especially in the region of the prostrate and the *bas ventre.* Some blood flowed through the canula for a few hours. Ordered laxative injection, with an anodyne draught.

Nov. 21*st.* This morning the silver catheter was withdrawn, and a flexible gum catheter substituted. Patient passed a restless night ; pulse 100 ; skin dry and hot ; tongue dry ; pain severe in the prostatic portion of the urethra and around the anus. On examination, a tumor was felt in the perineum, just in front of the membranous portion of the urethra.

Treatment the same.

Nov. 23*d.* This morning patient seems better ; suffers less, and passed a quiet night. Febrile symptoms diminished ; pulse 80 ; pain still felt in perineum, and the tumor has somewhat increased in size ; no appearance of fluctuation. Urine continues to flow by the canula, mixed with some flocculi of pus. Ordered cataplasm to perineum.

Nov. 25*th.* Patient has had several chills during the night ; complains of general malaise; expression of the countenance altered ; skin cold ; pulse quick and small ; tumor about the same size, and on examination, an obscure fluctuation may be felt in it. Urine continues to be mingled with pus.

Nov. 26*th.* In the same state ; some chills in the night ; the skin is cold, and tongue dry ; great thirst ; there is evident fluctuation in the tumor.

Nov. 28*th.* Patient is losing strength rapidly ; his countenance is much altered ; the eyes are sunken with the conjunctiva of a dingy-yellow hue ; the skin is cold, dry, and of a dirty-white color; face is *terreuse.* The tongue is dry and coated; the pulse weak,

thready and quick. Diarrhœa has set in; six stools during the day. The pain is still persistent in the tumor, in which the fluctuation is very evident.

Nov. 30th. Same state. Decubitus dorsalis; slight delirium during the night, in which the patient succeeded in withdrawing the sound. *Patient now complains of pain in the chest, more particularly on the right side.* On examination, nothing is found abnormal, either in the lungs or heart.

Dec. 2d. Patient is sinking. His pulse is almost imperceptible, with cold extremities; decubitus dorsalis; pain in the chest; continuance of pain in the perineum and *bas ventre.*

Dec. 3d. Death in the night.

Autopsy. The examination of the parts primarily affected showed that the stricture was situated at the commencement of the prostatic portion of the urethra. A false passage had been formed prior to the introduction of the conical catheter. The passage was situated to the *right* of the urethra, and between it and the prostate gland. M. Roux, in his forced catheterism, had also formed a false route, or rather gutter, for the lower surface of the urethra had been ruptured to the extent of an inch. The bladder was much thickened, and its mucous coat in some places ulcerated.

A large abscess had formed in the prostate, which communicated with another seated in the loose cellular tissue between the bladder and rectum. *The lungs were filled with metastatic abscesses. Small deposits of pus were found in the liver.* The stomach and intestines were healthy, as well as the brain and its meninges.

Diet in Cholera. By W. R. Handy, M. D., Baltimore.

It is not our intention to say anything of the origin, pathology, or treatment of this disease. Volumes have been written upon it, which, instead of dispersing the gloom that enshrouds this most fatal epidemic, only serve, it would seem, by the accumulation of conflicting statements, to hide its true character in still greater darkness, and render its mystery thereby, if possible, more mysterious.

All that we propose on the present occasion is, to invite attention to a single point, viz: *the exclusive diet*, prescribed by many physicians, in different sections of our country, and which

has been the subject of municipal discussion and regulation in several of our cities, during the prevalence, and in anticipation, of the cholera. The diet referred to, is the exclusion of all *vegetables*, as commonly understood and used under this head, and *fruits* And among the articles to be chiefly employed, rice seems to claim the highest commendation.

The ground for this recommendatory diet is based upon the belief that vegetables and fruits are among the most active *exciting causes* of cholera; and that their use, in fact, establishes the *predisposition*, and thus may be fairly charged with giving existence to the disease.

Now, with all due deference, we respectfully ask if such advice is not in conflict with the laws of a sound physiology and hygiene? and further, in conflict with observations and facts fairly interpreted?

It is to these queries our remarks will be principally confined. And first in reference to the law itself.

M. Magendie, from the many experiments which he instituted, lays it down as "an important hygienic precept," clearly demonstrated, that man requires "a variety of articles of diet,"—that in his food he is omnivorous; and if confined to any one article, however nutritious, that he would loathe, sicken, languish; and, in the cases where he could extend his experiments, as on the lower animals, that they would invariably die,—and that from starvation.

"Variety in food," says Chomel, in his General Pathology, "is necessary to man." "The exclusive use," he continues, "of any one article of food, in those whose unrestrained habits would have been opposed to such a course, almost always terminates in disease."

In speaking of the nutritive properties of proximate (organic) principles, Dr. Bell says, in his work on regimen and longevity, "Health could not be maintained in the exclusive use of any one, but on the contrary, variety is indispensably necessary."

Again. Man's organization seems to demonstrate most conclusively that variety of food is his natural diet. In the language of Dr. Carpenter, in his Physiology, "The construction of his digestive apparatus, as well as his own instinctive properties, point to a mixed diet, as that which is best suited to his wants."

It is well known that the teeth of man combine those, both of the

carnivorous and herbivorous animals, having the cutting and rending of the former, as well as the grinding of the latter; and that his alimentary tube holds an intermediate position, between those of both classes of animals; not having the shortness of the carnivorous, nor the complexity of the herbivorous, but combining the digestive capabilities of both, and consequently requiring the food of each.

"Repeated analysis," says Prof. Jackson, in his paper on tea and coffee, in the July No. of the American Journal of the Medical Sciences, "shows that these articles are unfit for nutrition, and has demonstrated that of the aliment that is adapted to healthy nutrition, one-eighth part only consists of albumen, or protein compounds. And whatever is devoid of those substances, cannot perform the office of food, or be fitted for nutrition."

Now protein is the representative of the azotized or albuminous portion of the food, and according to organic chemistry, consists of the following elements, to wit: of carbon forty, hydrogen thirty, nitrogen five, and oxygen twelve; while of the balance of the food, which is pronounced necessary to healthy nutrition, which constitutes by far the largest portion, not less than seven-eighths consist of the non-azotized, non-albuminous, or those articles of food which are deprived of nitrogen, and include, in great measure, the various vegetables and fruits which are excluded as improper diet during the prevalence of cholera.

From all this it would seem clearly to follow, that *variety of food* is most in accordance with, and necessary to fulfil, the physiological or natural law of man's being.

But it may here be objected that vegetables and fruits do not contain any positive elements of nutrition, as they are destitute of nitrogen, and consequently of protein, which latter is regarded according to the degree of its presence, as the proper measure of the comparative nutrient powers of the different kinds of food; it is then said that this protein being entirely absent in the excluded articles of diet, and that they thereby having no nutrient properties, nothing can be lost by their exclusion; and that so far as the nutrition of the being is concerned, that they are of little consequence.

To this we reply, that the position here taken seems more hypo-

thetical than real; more in conflict with standard authorities and facts, than in accordance with truth; for it is not denied that a large class of animals subsist and are nourished solely by the grasses and fruits, and possess the highest amount of energy and strength. And further, that their constitutions are charged with the element nitrogen; and that their tissues, equally with those of the carnivorous, are possessed of the protein compounds; hence, so far as the fact is concerned, both classes of animals are on an equality, as both have the protein in their composition, the only difference being in the manner of obtaining it. The class that live on flesh, take the nitrogen along with their food; while those that live on grass and vegetables, receive their nitrogen along with their respiration, which, combining with the elements of their food, form the protein compounds; so that, admitting protein and the albuminous compounds to constitute the proper elements of nutrition, the herbivorous class of animals derive the same advantage from its presence as the carnivorous.

But admitting that vegetables and fruits possess no nutrient properties for man, even if they do for some of the lower animals, still we think it may be maintained that they are necessary as articles of diet. Every one admits that heat, or a proper amount of *temperature*, is as necessary to life as food; in fact, constitutes one of the vital stimuli. Now it is ascertained that one of the great sources of animal heat is from vegetables and fruit, as well as all of the non-azotized articles of diet; and that this heat is produced by the carbon and hydrogen which are eliminated during the digestion and decomposition of the vegetable diet, combining with oxygen in the production of carbonic acid and water.

On this point, Prof. Jackson asserts that "fatty, starchy and saccharine matters are intended solely for the purpose of calorification, by their combustion or combination with oxygen introduced into the blood by the processes of respiration;" though he does not believe that they are in any way designed for nutrition.

So that allowing that vegetables and fruits contain no nutriment, the fact of their furnishing so much of the heat essential to life, must make them an important, and one would think, an indispensable part of diet; so much so, indeed, that that emergency requiring their expulsion, we would suppose, should be one of the last extreme, arising not under the authority of a hygienic

law, for that we have seen advocates and demands their use; but under that of a pathological law, when disease is actually present, and medical treatment demanded. In this latter case we acquiesce, and acknowledge the justice and propriety of the exclusion.

In the herbivorous class, where perspiration is very great, the temperature, by this refrigerating process, is constantly being lowered, and hence, their diet from being exclusively vegetable, gives them an abundant source of supply for the waste of this fundamental element of their existence. In the carnivorous animals "the temperature," says Dr. Carpenter, "appears to be sufficiently kept up by the combustion of the carbon and hydrogen set free by the decay of their tissues."

Man, from the variety of his food, enjoys the capabilities of both classes, and eliminates heat doubtless from both sources.

But the advocates of exclusive diet may exclaim, that even admitting all that has been said about the necessity of variety of diet,—which under ordinary circumstances they acknowledge is all right and proper,—the point at issue, in all that has been advanced, has not been touched:—that what they mean to say is, that the cholera influence is abroad over the land, predisposing the system to an attack, and that vegetables and fruits are among the most prominent causes exciting it into action or producing the disease; hence they assert the propriety and necessity of the advice which excludes all such articles of diet while the cholera prevails.

To this we reply, that cholera is well known to have prevailed as extensively and fatally in the depth of winter, when fruits were scarcely at all to be had, as in the summer, when they are so abundant. And where a case of cholera has occurred after eating fruit, in the language of Dr. Dunglison, it is a mere "coincidence," and such coincidences, in a period of alarm, have been sufficient to excite a terror against its use. And the same author continues, "There is, in truth, not the least reason for presuming, that ripe fruits had any thing more to do with the causation of cholera than any other kind of diet; and how easy it might have been to excite equal prejudices, on no more foundations, against any of the common aliments." The potato is allowed as an article of diet, yet, according to the experiments of Beaumont, whether baked, roasted, or boiled, it is not so digestible as the ripe mellow apple.

Now, according to the pathology of Chomel, there is a marked difference between *predisposing causes* and *predisposition;* for it must be admitted, that in those places where cholera was most violent and fatally destructive, all had not alike the same predisposition to an attack, and in some there was no predisposition at all, and in such consequently there was no cholera. But had the predisposition been present, then fear, fatigue, anxiety, and a variety of alimentary articles, any or all of them, would have proved equally active exciting causes with fruits in producing the disease.

When diarrhœa or irritation of the intestinal tube is present, we acknowledge the propriety of excluding, as a remedial means, the vegetable diet and fruits. But where this tube is in perfect health, and all the rest of the organs are in a like condition, we cannot see the wisdom or utility of the advice, which refuses the demands of nature by denying that kind of diet which her instinctive teachings in the physiological state the experience of every one abundantly proves to be the surest guides to the preservation of health. In fact, we think it may be safely asserted, that there is no more absolute unity and fixed standard of health, than there is an absolute unity and fixed standard of disease; that consequently there cannot be a fixed regimen of diet suited to every person, any more than there can be one fixed remedy for every disease. For health, which is a generic term, implies the normal action of each and all the organs, whether separately or collectively, as we speak of the health of individual organs, and the general health of the whole. And this normal action may present as various shades of modification as in the various individuals possessing it, and yet all be justly said to be in the possession of health; hence, with such modifications in the normal action of the organs of different individuals, it does not seem to be any marvel, that different persons should choose different kinds of food, and yet that each different kind of food should nevertheless be the proper kind to the individual so choosing, as all his organs are in a state of health, and consequently cannot err in their choice, and that the difference in choice must be explained by the difference in the shade of their several normal actions in health.

If these positions be established, an *exclusive diet*, then, to ward off disease, where no predisposition exists, we think may not

only be seriously questioned, but further honestly stated to be positively injurious. The extent of this injury may be briefly stated under these heads, viz.:

1. By depriving the system of its usual *variety* of food, we thereby injure it by robbing it in a proportionate degree of its otherwise healthy nutrition and proper amount of temperature.

2. By proclaiming this exclusive diet as indispensable, an element of fear is thus introduced, which seizes upon the people, creating such an alarm that they feel at a loss as to what they should eat; reasoning with themselves that probably the doctors may be mistaken about the safety of this and that article, as our neighbors here and there have died after eating it, and that therefore, to be on the safe side, we shall abstain from every such thing as much as possible. Such cases are no fiction; they have occurred; such individuals have abstained, and the conse quence has been, as might have been expected, even on common sense reasoning, that their general strength has given way; all the powers of their systems have become weakened, and thus a predisposition, or a standing invitation for cholera or any other disease that may be prevalent, has been created. Fear alone, aside from starvation, is sufficient to do this.

The third and last *injury* we have to mention as arising from this exclusive system of diet, is that inflicted upon a very large and important class of our fellow citizens who supply our markets with those excluded articles, and depend in a great measure on their sale as a means of livelihood for themselves and families.

We say, if the positions taken are tenable, it would seem to follow as a necessary consequence, though not at all intended, that such exclusion is armed with the highest cruelty and oppression on the one hand, as well as with unnecessary deprivations on the other, in resisting the use, of what we all would consider under other circumstances, as most delicious as well as harmless articles of indulgence.

Quinine in Fevers. By Henry Hartshorne, M. D., of Philadelphia.

An unpresuming statement of impressions formed recently, during a hospital residence, of the action of sulphate of quinine in autumnal fevers, has appeared to a southern correspondent of the Examiner, to have been "prematurely volunteered." Taking shelter under the modesty, evidently appropriate, with which these impressions were put forth, as mites in the balance of medical opinion, a few words more may be allowed upon the same subject.

It is asked, "what is *miasm-cause?*"—We rejoin, what is the cause of cholera?—what of the tubercular diathesis?—what of cancer—of yellow fever—of influenza? These questions are all upon a similar footing; yet does the critical writer deny the essential and practical entity of each or any of these? The peculiarities of the diseases termed miasmatic, are by all authority sufficient to determine their reference to a peculiar causation; our ignorance of the *nature* of which interferes no more with our knowledge of its existence, than would the uncertainty of the Pepsin theory with our trust in the digestibility of food.

The "Hospital Reports" in the American Journal of Medical Sciences, were written not to dare criticism, but to excite reflection; and accuracy of phrase has thus been sometimes sacrificed to brevity. Admitting, however, with this excuse, the guilt of making free with the word "antidote" with too little explanation of its intent, we would still reiterate for consideration the idea on which its use was based. As a matter of theory merely, it would be waste of words; but the subject has practical importance.

Fever is a symptom, or group of symptoms, the result of various pathological conditions. Venesection, purgation, and citrate of potash, &c., attack the symptoms directly, by their influence on the blood and circulatory system. If a large dose of arsenic excite fever by inflaming the intestines, the peroxide of iron may soon reduce, or might before have prevented that symptom, by addressing its cause. If an inflamed chancre should accelerate the pulse, its tranquilization by mercury might in part at least be ascribed to its anti-syphilitic power. If violent neuralgic pain, or mental inquietude, irritate the system into fever, large doses of narcotics or

some moral agency may quell it, by addressing the condition from which it arose.

Is quinine, then, in large or small doses, a remedy which, like the lancet and the cathartic, and refrigerants, reduces symptomatic fever? Or does it, like mercury in syphilis, or anodynes in neuralgia, attack a peculiar *condition* of the system, of which chills, fevers and sweats, are in turn the consequents? If the latter question be answered in the affirmative, it is no very dangerous perversion of language to say that, besides being generally a tonic and nervous stimulant, the sulphate of quinine is an "antidote" for intermittents and remittents,—a class of diseases to which no less an authority than Dr. Wood (Practice, Vol. I. p. 229) has sanctioned the application of the term "miasmatic."

The *cause* we know not; the *condition* of system peculiar to these diseases (certainly the result of some cause) we cannot demonstrate with the scalpel; but we know it by its effects, its connection with localities, and relation to remedies.

If much larger doses of quinine are borne in the southern than in the northern states, is not this fact accompanied by the truth that in those states miasmatic diseases are much more violent, and hence their *cause* (whatever it be) may be inferred to be more intense and prevalent? At least, this gives some approach to a reconciliation of the effects of the drug in these diseases with its generally understood physiological actions.

The matter may be summed up in a few queries, which it would be indeed premature for the present writer to attempt to answer. The experience of the north as well as the south must determine them.

Have our predecessors been in error, or not, in considering bark and its alkaline principles to be of the tonic class of remedies, and in prescribing them in all cases of prostration and debility?

Is there any case of *purely inflammatory* disease, neither *endemic* nor epidemic, in which a full, hard, accelerated pulse, hot, dry skin, and intense headache, and thirst, will, under large doses of unadulterated quinine, become subdued, tranquilized, and entirely cured?

Will a majority of cases of typhus and typhoid fever be relieved or aggravated by the administration of 30 grains of quinine once or twice daily, after the first day, and during the first week?

If this discussion could lead to a clear decision on the subject by competent authority, our "impressions," however rashly formed, will not have been volunteered in vain.

Singular case of Asphyxia, communicated for the "Examiner," by Thomas F. Betton, M. D., *Germantown, Pennsylvania.*

There occurred to me yesterday, a singular circumstance, the facts of which I send to you. It is curious, because uncommon.

A well digger, James D. Fenton, was employed by my neighbor Mr. Cox, of the Gen. Wayne Hotel, to do some repairs to his well. He was cautioned not to go down without the usual experiment of sending down a burning candle, which he did, and found that it was extinguished at about 10 feet from the surface of the water, say some 33 feet below the surface of the ground; but he observed that it did not go entirely out, but that the coal on the wick still remained red.

Accordingly he descended, and feeling himself becoming faint, unhooked the rope from the bucket, and passed it round his body, and cried out to be hauled up The rope had a large iron hook affixed to the end. By some means or other the rope became disengaged, and slipped, either luckily or unluckily for him, around his neck. In this way he was drawn up suspended per collum, and with the iron hook pressing firmly under his right ear. To all appearances he was defunct. I was sent for, and living only a quarter of a mile off, saw him in five or ten minutes. I could barely perceive a faint pulsation of the heart. He was laid on a settee with his head raised on cushions. These I removed, dashed cold water freely in his face, and poured some brandy into his mouth. To my satisfaction he soon began to revive, his pulse returned, and in half an hour he was pretty well. He was totally unconscious of all that had passed, and even did not remember putting the rope about him. So far gone was he, that the sphincter ani was relaxed, to his great annoyance. He is well to-day.

September 8, 1849.

Pennsylvania Hospital.—*Surgical Wards.—Service of* Dr. Fox.

Cases discharged from August 1st to September 15th, 1849.

	Cured.	By request.	Died.
Abscess,	1	1	0
Bunyon,	1	0	0
Burn,	3	0	0
Cancer of lip,	2	0	0
Do. breast,	0	1	1
Closure of pupil,	1*	0	0
Compression of brain,	0	0	1
Concussion of brain,	1	0	0
Contusions,	5	0	0
Coxalgia,	0	1	0
Disease of knee joint,	3†	0	0
Do. skin,	2	0	0
Dislocation of ankle,	1	0	0
Do. thigh,	1	0	0
Compound dislocation of elbow,	1‡	0	0
Epulis,	1	0	0
Fistula in ano,	1	0	1§
Fractures 32, simple 26, viz.:			
Arm,	8	0	0
Clavicle,	3	0	0
Fore arm,	5	1	0
Leg,	2	0	1‖
Metacarpus,	1	0	0
Metatarsus,	1	0	0
Rib,	1	0	0
Scapula,	0	1	1
Thigh,	1	0	0
Fractures, compound, 6 viz.:			
Leg,	2	0	1‖
Skull,	0	0	2
Upper jaw,	1	0	0
Gonorrhœa,	8	0	0
Hydrocele,	2	0	0
Inflamed arm,	2	0	0
Do. eye,	1	0	0
Do. foot,	1	1	0
Do. hand,	4	0	0
Do. knee,	4	0	0
Do. leg,	1	1	0
Injury of spine,	1	1	1
Iritis,	1	0	0
Necrosis,	1	0	0
Orchitis,	1	0	0
Phymosis (Conginital),	1	0	0
Polypus of ear,	1	0	0
Scrofula,	1	0	0

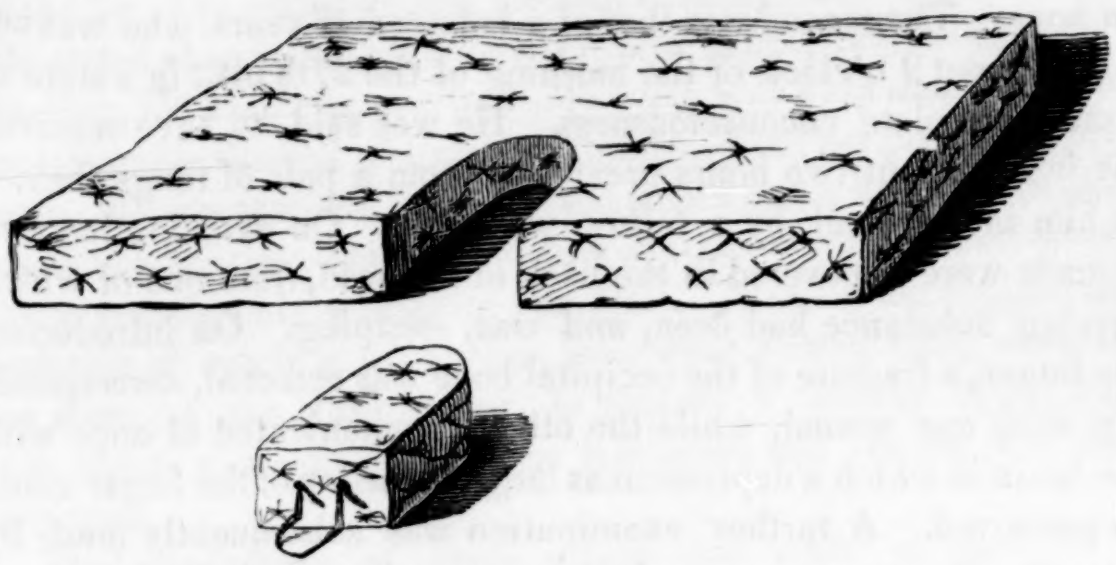
* By operation for artificial pupil. † One by amputation.
‡ By amputation. § Of phthsis pulmonalis. ‖ Of mania a potu.

	Cured.	By request.	Died.
Strumous Ophthalmia, - -	1	0	0
Sprain, - - - - -	1	0	0
Stricture of urethra, - - -	1	1	0
Syphilis, - - - -	10	3	0
Tumour, - - - - -	0	1	0
Ulcers, - - - - -	7	0	0
Wounds 22, viz.:			
Of the eye, - - - -	1	0	0
Gun shot, - - - -	1	0	1
Incised, - - - -	7	2	0
Lacerated, - - - -	7	1	0
Penetrating, - - - -	0	1	1
	115	17	11

It will be seen by the above table, that an unusual number of fractures has been under treatment and discharged during the months of August and September. These accidents continue to increase, as I find by reference to the register that there have been received since the first of August up to the present time—some of which still remain in the house—forty-seven cases of broken bones.

The treatment of these has been that successfully pursued at the hospital for many years. Fractures of the clavicle, with the sling and pad of Dr. Fox; fractures of the condyles of the humerus, with the angular splint placed on the front of the arm, as described in July No. of the Examiner; fractures of the os femoris, with the apparatus of Dessault, as modified by Physick and Hutchinson.

Some inconvenience having resulted from the too yielding nature of the material of which the mattresses used in the wards are made, (ordinary curled hair,) Dr. Fox, while on duty, had one constructed which appears to possess many advantages over those heretofore used. The material employed is the husk or envelope of Indian corn, torn in shreds, and slightly twisted. The mattress is sewed closely, and affords a firm support to the body of the patient. In the centre of this, instead of the ordinary circular hole usually to be found over the bed pan, is an U shaped opening, extending to the outer side of the bed, to which is fitted a pad made of the same material as the mattress, and one inch less in thickness. On the under surface of this pad, a board an inch thick, and perfectly smooth, is bound, which slides readily over the corresponding part of the bedstead. A loop of binding is attached to the outside of the pad, to render its removal more easy. (*Vide cut.*)



The advantages possessed by this will be at once apparent to all who have been accustomed to the treatment of fractured thighs. In the ordinary mattress, a depression at the patient's buttocks raises the lower end of the upper fragment to such an extent as not unfrequently to render necessary the application of a pasteboard splint on the front of the thigh; while the removal of the circular pad, even by the hands of careful nurses, is very liable to disturb the perfect apposition of the fragments. In this, when the pad is in its place, the patient lies on a perfectly horizontal plane; and if it be necessary to use the bed pan, the pad can be gently withdrawn by the outside loop without communicating the least disturbance to the fractured limb. To render it still firmer, it is proposed that the sides of the board should fit in a corresponding groove, either in the opening of the mattress, or one in the bedstead, as may be found most available. As the mattress is alike on both surfaces, it may of course be used for either thigh.

The two fatal instances reported, of fracture of the leg, were men of most intemperate habits, who received their injuries while intoxicated, and died of mania a potu a few days after their admission. The fracture of the scapula was in each instance the result of a fall from a great height. The first remained in the house but a few hours having been subsequently removed to his home. The second, a man who had fallen from the roof of a five story building, striking his head and shoulder in the fall, never recovered from the concussion. The compound fractures of the skull, both of which proved fatal, were first that of a colored man who had fallen from a height of three or four stories, and was brought to the hospital in a dying condition; he expired in less than

an hour. The second was that of a lad aged 17 years, who was admitted about 9 o'clock of the morning of the 27th ult., in a state of almost complete unconsciousness. He was said to have received his injury about two hours previously from a pair of tongs thrown at him in a quarrel, by a fellow workman. On examination two wounds were discovered in the back of his head, from one of which cerebral substance had been, and was, escaping. On introducing the finger, a fracture of the occipital bone was detected, corresponding with one wound, while the other communicated at once with the brain in which a depression as large as the top of the finger could be perceived. A further examination was subsequently made by the attending surgeons, and the external wound having been enlarged, the injury to the brain was still more apparent; no loose bone could be found. As it was thought that the fragment might have been removed by the physician out of the house who had first seen him, and as no benefit could result from further exploration, the edges of the wound were brought together, and retained loosely by two stitches, and the cold water dressing applied. He continued in a state of partial stupor, rendering the exhibition of medicines impracticable; had several convulsions, and died on the 30th of the same month. A post mortem examination discovered the presence of pus on the dura mater, the brain highly inflamed, and in its substance a large excavation corresponding with the external wound, and extending to some distance in its vicinity. The brain having been cut open, a piece of bone fitting the orifice of the os occipitis was found deeply imbedded in its substance.

The dislocation of the femur was into the foramen ovale; it was reduced with the pullies after the manner recommended by Sir Astley Cooper; the man left the house, well, in sixteen days.

A more full history of this case, as well as that of a recovery from a bad compound fracture of the leg will probably be given in a future number.

A case in which the application of straps of adhesive plaster in the treatment of ulcers of the lower extremity,—Baynton's method as improved by Critchett,—was successfully used, will be briefly described. The patient, a farmer, aged 37 years, entered the hospital August 15, with an extremely indolent ulcer over the middle part of the shin bone, with uneven edges and much below the surface

of the leg. The patient was at the time of his entrance in good health. He stated that it had been sore for more than a year, occasionally healing, but soon reappearing. The leg was very much swollen, nearly twice the size of its fellow, but tense and not pitting on pressure. After a warm bath he was put to bed and a flax-seed poultice applied to the part. On the following day the wound was touched with lunar caustic and the poultice reapplied. Stimulating applications, solution of sulphate of copper, &c., were subsequently used, and as soon as the ulcer began to present a healthy appearance, (in about a week) these were laid aside and the leg was firmly strapped.

The application of these straps was made as directed by Critchett in the Lancet of October, 1848, page 417. The first strap, about an inch wide, was applied by its centre low down on the back of the heel and then pressed by the palm of the hand along both sides of the foot. The second piece was applied in a similar manner under the heel, and carried up at right angles to the first, the third, which slightly overlapped it, was applied to the back of the heel above the first and brought forward as before mentioned; the fourth under the foot, &c. This was continued until the foot was covered; the straps were then carried up the leg as high as the knee. Over this an ordinary roller was firmly applied. The patient remained in bed for three days, by which time the size of the leg having diminished, rendering the straps somewhat loose, they were removed. The ulcer was found to be rapidly filling up. The same application was again made and the patient allowed to rise. Five days later it was again removed, and the ulcer was found to have cicatrized, the new skin being on a level with the old, or nearly so, and healthy in its appearance. The patient remained in the hospital a week longer, still wearing the straps and walking about as usual. No disposition to a return of the ulcer appeared, and the man left the house September 7th, perfectly well, having at his own request had the straps renewed immediately before going out, still wishing to wear that which, in his own words, was so pleasant, and gave so much strength to his leg.

The compound dislocation of the elbow, was the result of entanglement of the arm in machinery. The joint was opened and the parts shockingly lacerated. Amputation of the humerus

was performed by Dr. Fox. The arm was found unusually vascular, and a very large number of ligatures was necessary. A piece of dry lint was interposed between the flaps to prevent too speedy union of the external parts, the cold water dressing applied at once, and continued during the treatment. The lint was removed four or five days subsequently, the ligatures came away safely, and the patient left the hospital in one month and two days after the operation.

JAMES J. LEVICK, Resident Physician.

Pennsylvania Hospital, September 15, 1849.

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Parturition, and the Principles and Practice of Obstetrics. By W. TYLER SMITH, M. D., London; Lecturer on Obstetrics in the Hunterian School of Medicine. Philadelphia, Lea & Blanchard, 1849. pp. 395. 1 vol. 12mo.

The English press has of late years teemed with treatises on obstetrics, and their reproduction in the United States has proceeded almost *pari passu*. The evidence of the importance of the subject, and of the interest it has created, derived from this source, is sufficiently evident; we hope as large a profit has been derived by readers from the general diffusion of such publications, as by booksellers.

The position held by obstetrics has for a long time, in the eyes of the intelligent world, been an equivocal one. Nature alone, in most cases, being capable of accomplishing all required, and the act of labor involving feelings of delicacy on the part of the female, a disposition to run the gauntlet, and trust to such assistance as might be at hand from the same sex, has placed the art among the handicrafts, for the skilful performance of which no rules can be given. Or it may be supposed that, like the making of butter, cheese, and such articles, a certain knack being acquired, it belongs entirely to the practiser. We have been amused to hear such ground taken even by eminent medical men, who had grown

ancient in their vocation, whose views were those of their youth, tinctured with the prejudices of the early and necessarily rude condition of society in which they were educated. In some countries, and among a people remarkable for simplicity of living, and healthfulness of constitution, such ideas may be entertained, without any danger of diminution to the population, or in the aggregate of great personal suffering. This is not, however, the state of the whole world; and communities exist, so altered in physical constitution from causes which are inherent to civilization itself, that humanity cries aloud for help, and help has come by scrutinizing nature. Upon this is founded science, and although not apparent in its application to every case which occurs, yet cases do occur often enough to keep alive the spirit and the necessity of science for the mitigation of the dangers which attend them. "Obstetrics, the Science and the Art," as a late writer has felicitously been pleased to term it, may well lay claim to importance as a branch of practical medicine, in spite of lampoons on Dr. Slop, or merrymaking at the expense of accoucheurs.

The book whose title is at the head of this article, is an evidence of the original direction which a reflecting, ingenious, cultivated, though perhaps prejudiced, mind may take. It is creditable to the author, and we think will be advantageous to the profession. We have read Dr. Smith's Lectures with pleasure, and shall now proceed to give an account of them.

The form of lectures has been adopted, a form which has not been altered from the mode in which the author's teachings were delivered; on this account there is not noticable the stiffness and precision of more formal publications. Another charm of the work is the absence of an affected nomenclature, which of late years has been carried to such lengths as to be prejudicial. The pedantry of some authors in this department is disgusting; equivocal Greek and Latin transformed into English, is neither instructive nor agreeable, and bad taste alone can dictate it. An idea (for these mongrel names are intended to convey ideas) is rather confused than simplified by such a process. The introductory is devoted to a "comparison between British and Continental obstetric medicine." Preceding this is a vindication of the obstetric art, and an exposition of its character, as chivalric as it is true; every lover and respecter of the sex will accord with the sentiments expressed in the

following language: "The excellence of obstetric medicine is one of the most emphatic expressions of that high regard and estimation in which women are always held by civilized races. The state of the obstetric art in any country may be taken as a measure of the respect and value of its people for the female sex; and this in turn may be taken as a tolerably true indication of the standard of its civilization. Schlegel, alluding to the historical growth of nations, calls the institution of marriage the real commencement of civilized life. It may be declared as a truism, that obstetric science must flourish most in countries where the marriage tie is most respected—where women are held in the highest esteem."

One of the causes instrumental in the elevation of obstetrics is the transfer of the practice from the hands of the midwife to the thoroughly educated physician; as expressed by Dr. Smith, "a triumph which has well nigh transferred the allegiance of the lying-in woman from Lucina to Apollo." In England, as it appears, this transfer is not complete, as the signs of the existence of the midwife are occasionally seen in the glowing report of some lying-in charity, the advertised sale of a child's caul, or the newspaper report of a fatal child birth accident. The Royal Maternity of London is conducted by midwives. As far as we are aware, no such institution in the United States is dependant on operatives of this description. An attempt was made by some of the older physicians, in one of the eastern cities, some years since, probably for the purpose of retaining their practice, to introduce a bona fide midwife. It has not however been followed by an increase of the corps, and will not be. Even in instructing nurses, and the establishment of nurse charities, unremitting surveillance is necessary, or such charitable efforts will degenerate into baneful enterprises.

The comparison between British and Continental obstetrics is introduced by the following paragraph. "I think we may take the state of obstetrics in France as the type of continental practice, and I do not think the British school need fear the most severe comparison. Almost all observers concur in the opinion, that throughout the continent, the ties of marriage are less severely observed than in this country. The social organization is less favorable to domestic union and constancy. This is reflected with tolerable accuracy in the general condition of the obstetric art.

We must ever honor the names of Ambrose Paré, Guillemeau, Mauriceau, Portal, La Motte and others of the older French school, as among the great fathers of modern midwifery; but I think it will be granted that cotemporary habits and manners in France are unfavorable to the general cultivation of midwifery, as a branch of the profession claiming equal dignity and usefulness with medicine and surgery. The obstetric art must, I have maintained, flourish most where women are held in the highest esteem. We may admit that the French are a polite people, but they have their paradoxes in matters of feeling as well as in politics. Gentlemen on the other side of the channel most earnestly assist the fold of a shawl, or perform slight services with the greatest gallantry and devotion; yet they consign their women in the hour of travail to the care of their own sex. Such is the fashion and custom of the time." For this exposition we must make a small degree of allowance for national prejudice, and a little more for zeal to clear the face of the earth of that excrescence, as it may be in Great Britain, the midwife. There is no Englishman who does not think his country, with her laws, institutions, customs, manners and habits, the perfection of all that is human, and although the empty sentimentalism of the French may not be pleasing to him when compared with the straight forward, knock down manner of his own countrymen, much might be said by the former in the way of recrimination, especially if the poor rate system and other abuses, together with the vast multitude of degraded and demoralized individuals who throng the streets of London, are marshalled in opposition. A comparison of national morality is a delicate subject, and a beam may, perchance, be in the eye of one who sees a mote in his neighbor's eye. We desire not to pursue this subject further, and will merely say that if avowed illegitimacy in noble quarters be an index of morals, we need go no further than English history to find it.

In summing up the differences between British and Continental practice, the following appear to be the matters which are particularly in relief, the picture of each being presented. For the British —the partiality for craniotomy,—the induction of premature labour, —the proposed separation of the placenta in placenta previa,— the dislike of the Cæsarian section, the Sigaultean operation, and the frequent use of the long forceps. For the Continental—the favorable

opinion entertained of the Cæsarian operation—the high opinion in which the Sigaultean operation has been held—the frequent use of the long forceps—the great dislike of craniotomy, and of the induction of premature labor. A somewhat curious mode of explaining the reason of this difference is given by our author—viz., the difference of religious faith professed in England and on the Continent. In fact, the English line of practice has been boldly stated by the author to be *Protestant*, in contradistinction to the other as *Roman Catholic*. We confess we are not convinced by the statements made, either of so great a difference or its cause. Although the Church establishment of England is Protestant, it proceeded from and was originally Roman, the latter faith, moreover, is abundantly spread throughout the kingdom, and we are not aware that when Lutheran or Calvinistic doctrines were introduced, they were attended with a Herodian recklessness of infant life. The option, if it be forced upon the practitioner, between the life of the mother or that of the infant, is inherent in feeling and common sense; the loss of one creates a family void which is irreparable; the loss of the other is transient in its effects, and comparatively trivial. We do not see that priestly dogmas should more effect the medical mind, than they did that of Napoleon, who throughout his career sacrificed thousands annually of unanointed bodies on the altar of his ambition. The ridicule which was intended to be thrown upon the learned doctors of the Sårbonne by ~~Swift,~~ in his speculations as to the mode by which Tristram Shandy could be baptised, are as applicable to the high church party as to the Catholics; if the "lament of the elder French accoucheurs for the soul of a fœtus lost during delivery" were heard on the one side of the channel, we opine a corresponding groan at the same period was elicited by the same circumstance upon the other. It is a christian principle to save life, both of mother and child, but to hold the scales so as to allow one or the other to preponderate is a reproach to christianity, whether Protestant or Roman Catholic. The French are bold and daring surgeons. Does not this come from their dense population and hospital system? Who has been bolder than Sir Astley Cooper when he tied the aorta?

In America (North,) the child of England, an objection has suggested itself, that, being Protestant, continental opinions and practices prevailed, and therefore they could not be of religious

origin. All sects are tolerated in these United States, and with respect to medical opinion it may be said to be eclectic. The masters and teachers of the present race of practitioners were for the most part educated in the schools of England or of Scotland. As pupils in London or Edinburgh they imbibed decided predilections. Besides, the earlier treatises on the especial branch we are now discusssing were all English. We recollect the time, not long ago too, when Denman, Burns, Smellie and Wm. Hunter were the only authors whose productions could be procured by students. No French obstetrics were taught until the appearance of Baudelocque's treatise, and of the work of Dr. Dewees, based upon it. At the present time the reigning authorities are Churchill, Ramsbotham, Lee, and Rigby, the sales of which are threefold those of Moreau, or Velpeau, or Chailly. If the opinion be entertained by Dr. Smith, " that notwithstanding the blood relation between the United States and this country, American midwifery is far more the child of France than England," we would remark that such deduction from the exposition of any one treatise published in this country, is as little to be relied on as that one swallow makes a summer.

The introductory lecture is remarkable for its boldness, and the strong presentation of the views held by the lecturer; he has assumed and acted upon the license awarded to introductories. The distinctive peculiarity of these lectures, taken as a whole, is the exposition and development of the doctrine of reflex motor action. This doctrine will be found to run through explanations of the physiological movements which acompany the act of conception and parturition. In no system of obstetrics has so much been predicated upon the nervous arrangement by which all the organs, involved in the acts mentioned, are supplied, as in the present. The author is a thorough disciple of Dr. Marshall Hall's views of nervous action, and their application to the reproductive functions has opened a new field for inquiry and investigation. Without following the order of the lectures, we shall endeavour to sketch the ideas and arguments presented to us.

The first point to be established is the existence of nerves. " Sympathies and synergies innumerable between the uterus and other organs, as well as the scalpel of the anatomist, proclaim the existence of uterine nerves, both in the impregnated and

unimpregnated states. The nerves of the uterine system can be best studied as a distinct group, and for this purpose they form a class almost as well marked as the respiratory nerves."

They are—1. *Nerves of the ovaria*, derived from the renal and spermatic plexuses. Dr. R. Lee has demonstrated them in some recent dissections in considerable quantity. They exhibit ganglia upon the surface, and often entering the substance of the ovaria. They pass in company with the spermatic artery, and pervade the whole organ. They are distributed by fibres to the fundus uteri, os and cervix.

2. *Nerves to the fallopian tubes.*—These are from the hypogastric regions.

3. *Nerves of the uterus*, from the hypogastric and sacral nerves, and by branches from the spermatic plexus. "Below the bifurcation of the aorta, the aortic plexus divides into two hypogastric nerves. Dr. Lee describes the hypogastric nerve as forming in its descent to the cervix uteri, the hypogastric plexus. This plexus, when it reaches the cervix, terminates in a large ganglion. The hypogastric ganglion is, in the unimpregnated state, on the authority of the same anatomist, from half an inch to three-quarters of an inch in diameter, and is made up of numerous lesser ganglia with their rami of communication. Into the outer and lower surface of the hypogastric ganglion, numerous branches enter from the third, and sometimes from the second and fourth sacral nerves. This ganglion, thus composed and reinforced, is considered by Dr. Lee as the centre from which each lateral half of the uterus is supplied; from the hypogastric ganglia, nerves pass in various directions to the os, cervix, body and fundus, and are distributed extensively to the muscular structure and the internal surfaces of the uterus. In the course of their ramifications over and in the substance of the uterus, numerous ganglionic enlargements occur. In the virgin uterus, Dr. Lee has especially directed attention to a beautiful ganglion in front of the hypogastric ganglion, extensively connected with the surrounding nerves, which he has called the Lawrentian ganglion, in honor of Mr. Lawrence; and in the gravid organ Dr. Lee has described numerous sub-peritoneal ganglions and plexuses on the anterior and posterior surfaces of the organ. These ganglia and plexuses maintain extensive communication with each other and with the hypogastric ganglion below, and the

spermatic plexuses and ganglion above. The nerves of the virgin uterus are sinuous or undulating in their course, and invariably accompanied to their termination by small arteries."

4. *Nerves of the vagina*, from the hypogastric ganglion and spinal sacral nerves.

5. *Nerves of the external parts of generation.*—The vulva and perinæum are chiefly supplied by filaments of the genito-crural nerve, branches of the anterior sacral nerves and the perinæal branches of the pudic nerve.

Besides the preceding account of the distribution and arrangement of the nerves supplying the uterus and its appendages, a very important point is presented in the character and derivation of these nerves; we shall adopt the author's exposition of this also. "In the first place the chain of thoracic and abdominal ganglia of the sympathetic communicate with both the sensitive and motor roots of the spinal nerves, and in this way the cerebral and spinal fibres become mingled with the fibres of the sympathetic, and fibres from the sympathetic communicate with the spinal roots. The sympathetic nerves are chiefly formed by these intercommunicating fibres, from the spinal roots to the ganglia of the sympathetic. The great splanchnic nerve arises from the sixth, seventh, eighth, ninth, and tenth thoracic ganglia, and according to Dr. Beck, from the superior thoracic ganglia also. The lesser splanchnic arises from the tenth and eleventh thoracic ganglia. The great splanchnic enters the semilunar ganglion, and it is by the two semilunar ganglia, and their communicating filaments and lesser ganglia, that the solar plexus is chiefly formed. Into the solar plexus some of the terminal filaments of the pneumogastric and phrenic nerves also enter. These fibrillæ from the phrenic and pneumogastric may terminate in the liver and kidney, or they may pass through the superior plexuses of the abdomen, to reach the inferior abdominal, and even the pelvic plexuses. The renal plexus is formed by branches from the solar plexus, and the termination of the lesser splanchnic nerves; the renal plexus also receives fibres from the vagus, and the spermatic plexus is a sub-plexus of the renal. From the spermatic plexus the ovaria and part of the fundus are supplied. The inferior aortic plexus is the last of a series of abdominal plexuses, and it is connected by a chain of ganglia and plexuses with the solar and

renal plexuses and with the latter lumbar ganglia. From the inferior aortic plexus the hypogastric nerve descends, forming the hypogastric plexus and the hypogastric ganglion; with this ganglion branches of the sacral nerves unite ; and from this nervous estuary the uterus is finally supplied. If we adopt the view, that the plexuses of the abdomen, like the external plexuses, are mechanical adaptations for mixing nervous fibres from different sources, and and apply it to the uterine nerves, it becomes a possibility, and I may say a probability, that the uterine nerves are more variously derived than any other nerves of the body." Again: "The nervous lines I have been enumerating are quite sufficient to account for the communication between the uterus, the brain, and the spinal marrow. The communications between the numerous ganglionic centres and the uterus, are still more obvious, and there is little question but that the great mass of the uterine nerves is composed of ganglionic fibres."

The nerves of the unimpregnated uterus were first described by Wm. Hunter. Tiedemann next described them, and they have since been elaborately examined by Drs. Lee and Beck, who agree with respect to their existence, but differ as regards their size and distribution. Dr. Smith strongly contends for the opinion of Dr. Lee, that the nerves of the gravid uterus are greatly enlarged beyond what they are in the unimpregnated state.

Based upon the truth of this exposition of the nervous supply, and arrangement of the nerves afforded the uterus, is the doctrine of nervi-motor action, or, as it is called, *reflex nervous action* of the uterus. This doctrine in the case of other organs was first promulgated and illustrated by Marshall Hall. It has been applied, carried out, and illustrated with respect to the uterus. All the parturient phenomena are in fact predicated upon it.

The forms of motor action are voluntary, emotional, *excito-motor* or *reflex*, and the peristaltic. The two first and last are accessory. The reflex movements are primary ; volition and emotion may be suspended or altered, and the reflex peristaltic movements be unimpeded.

The following paragraphs will explain the author's exposition of reflex action.

"The Reflex actions of the uterus are very numerous, and it is upon these, and the numerous extra-uterine reflex actions excited

during the process, that the natural performance of parturition essentially depends. Contraction of the uterus, from irritation of the mammæ, as in the act of suckling the child; contraction of this organ from the cold water douche, applied to the vulva or the abdominal surface; contraction excited by irritating the rectum, as by stimulating enemata; or of the stomach, by drinking a gulp of cold water; of the ovaria, by the presence of the menstrual nisus; of the vagina, by manual irritation, as in "taking a pain;" of the os uteri by irritation, as in the introduction of the hand into the uterus—are all to be considered as so many instances of reflex spinal action. Thus, in parturition, the uterus may be excited, in a reflex form, by irritation of the mammary incident excitor nerves; the pubic and abdominal branches of the intercostals; the rectal; the gastric division of the pneumogastric; the ovarian nerves; and also by the nerves of the vagina, and the os and cervix uteri.

"Many of the different forms of abortion—particularly when the causes are extra-uterine—strikingly illustrate the reflex action of the uterus. A series of cases of abortion would be one of the best expositions of reflex uterine action. Abortion may be caused by irritation of the mammæ, from the sucking of an infant, after milk has ceased to be secreted, as in cases in which the mother becomes pregnant during lactation; abortion may be excited, as a morbid reflex act, from irritation of the bladder, by a calculus; by irritation of the tri-facial nerve, as in cutting the dens sapientiæ; by the mechanical irritation of coïtus; by plugging the vagina; by disease of the os and cervix uteri—malignant or simple induration, inflammation and ulceration; by the irritation of the placenta attached within the uterine mouth; by ovarian irritation in ovarian disease; by irritation of the rectum, as from ascarides, and the use of irritating purgatives or enemata; by puncturing the membranes, and evacuating the liquor amnii, so as to bring the head of the fœtus to act as an excitant to the os uteri; by irritation of the inner surface of the uterus itself, in cases of blighted fœtus, where the ovum acts as a foreign body; by riding on horseback, or any other violent exercise calculated, by succussion, to bring the head of the fœtus into violent contact with the os uteri; and by other sources of irritation to incident spinal nerves which might be enumerated. All these are so many instances of uterine reflex action, the distant parts of the economy being brought into connection with the uterus through the medium of the spinal marrow and its special incident excitor and reflex motor nerves. These facts are of most extensive practical application in devising means for the prevention of abortion.

"In cases of abortion in which the irritation is applied to the os or cervix uteri, or the internal surface of the organ, the imme-

diate action depending on the irritability of the uterus itself is called forth, in connection with true reflex action; but in the instances in which a distal organ is irritated, there can be no doubt whatever of the purely reflex nature of the uterine action which ensues.

"In the lower animals, reflex parturient phenomena are constantly observed; the expulsion of the egg of the common fowl has been caused by sprinkling a few grains of salt upon the vulva or velabrum; cold injections have been used empirically, to excite uterine contractions during foaling or calving, in the mare and cow; and the tipula and libellula have been observed, during the period of oviposition, to deposit eggs, whenever they have been shaken upon rough paper, or when the surface of the abdomen has been irritated in any way: these insects, the silk-worm moth, and others, go on with the work of oviposition even when the abdominal have been divided from the thoracic portions.

"But besides the uterine reflex actions, there is in the Expiratory actions, supervening in the course of labor, from the irritation of the presenting part of the fœtus, another remarkable series of reflex parturient actions, extra-uterine in their seat, but which combine and harmonize in a remarkable way with the reflex actions proper to the uterus. It is found that tumours in the vagina, or the introduction of the hand of the accoucheur, may produce the same result as the pressure of the presenting part of the child in labor. It has been noticed of tumours, which produce little or no motor disturbance while they remain in the cavity of the uterus, that no sooner do they pass from the uterus into the vagina, than "bearing-pains," as they are termed, are produced. In other words, the action of the expiratory muscles is excited in a reflex form by irritation of the vaginal mucous surface.

"In fully-formed labor, then, we have to study the reflex actions of the uterus in combination with the reflex actions of the respiratory muscles, as they are excited in parturition. By these latter reflex actions, the cavities of the thorax and abdomen become involved as auxiliaries to the uterus, and their expulsory actions combine with the proper reflex action of this organ, to effect the expulsion of its contents. But there are also opportunities of observing the reflex action of the uterus singly; such, for instance, as in cases of paraplegia from disease of the middle portion of the spinal marrow. Here the reflex expiratory efforts, the influence of volition and emotion, are entirely withdrawn, it being quite impossible that these actions can be brought into play when the connections of the uterus with the medulla oblongata

and the cerebrum, the centres of the respiratory and voluntary actions, are severed. Labor is, in such cases, reduced to very simple elements, being performed solely by the reflex action of the uterus and its peristaltic power.

"In natural labor, after the process has fairly commenced, it is the ovum which furnishes the chief stimulus to the incident excitor nerves, in its transit through the different portions of the parturient canal. Besides the mere enumeration of the various spinal excitors, by the irritation of which the uterus may be affected physiologically or pathologically, we shall have to study the order and succession of the normal reflex actions, uterine and extra-uterine, occurring in labor. Parturition is not one reflex act, but a function, the combined result of many such actions, aided by other powers; and we must study the preliminary phenomena, the different stages of the process, and the final accomplishment of the function; when we shall find that Nature has at her disposal a wonderful succession of stimulus and action, exactly adapted to the dilatation of the os uteri and the vagina; the propulsion and expulsion of the fœtus; and providing, also, for the safe contraction of the uterus, and its return to the unimpregnated state."

We have, endeavoured so far as compatible with our limited space, to give an idea of the leading doctrine of this work. But the whole subject is made to teem with interest, as the articles connected with generation and labour are successively touched upon. The work is a philosophical disquisition rather than a practical treatise. It places before the mind matter for reflection and inquiry, rather than enforces practical dogmas. It may better be entitled the institutes of obstetrics, than a practice of obstetrics, and as such demonstrates that the subject is a scientific one. We recommend the practitioner and student to familiarize himself with and to ponder deeply upon the contents—familiarity with them will make him wise, as experience with such foundation will make him skilful.

Researches upon the Vital Dynamics of Civil Government. By Bennet Dowler, M. D., &c. &c. (Reprinted from the New Orleans Medical and Surgical Journal.) New Orleans, 1849. 8vo. pp. 29.

Anything from the intelligent and industrious pen of the author of this pamphlet would be gladly welcomed. His name alone is a sufficient guaranty that the time devoted to the attentive reading of this latest and not the least original of his characteristic efforts will not be thrown away.

The subject he has chosen, needs no argument of ours to establish its importance. It is evidently a favorite one with him, although peculiar and perhaps too unattractive to most medical inquirers. Those who are interested in such studies, will be gratified to find that on this occasion Dr. Dowler has managed to give his theme an aspect which renders it at once as flattering to the national vanity of his professional readers, as it is instructive in the copious amount and variety of statistical information he has brought to bear upon the question. Many a patriotic devotee to less repulsive explorations in the fields of medical investigation, who would shrink from an encounter with such a numerical array upon an ordinary topic, may diligently con the doctor's various tables for the sake of the democratic doctrine they are intended to uphold.

"The facts adduced," we are told at the outset of the argument, "may not prove the doctrine with which they have been associated, but they are not for that reason the less worthy of a careful study; for if they do not justify the suggestions thrown out, they may awaken inquiry, and lead to a more philosophical interpretation." It is further stated, that in the course of his researches, the author has "examined the most authentic works illustrative of vital dynamics, (though that examination may not appear in this paper,) including phrenology, ethnology, psychology, social physics, climatic agencies, the perturbations of immigration and emigration, the geographical distribution of races, the density of population, mortality, marriage, births, the mean duration of life, the physical comforts, as food; also pauperism, industry, capital, education, not to name that all-comprehending subject vaguely denominated civilization." His statement of the

object of the essay, and his account of the manner in which he has collected the various data for its basis, are here given in the writer's own words. All must admit the respectability of such credentials; and we need hardly say, they have our hearty commendation.

Thus much for the object of the monograph, and the character of its materials. Next comes the doctrine it proposes to maintain. This may be best presented also in the language of the author—"If vital progression in the Caucasian race be the result of several antecedents, it is probable that the form of government, other things being equal, is the principal element of acceleration, or retardation, according as this government approximates the representative or monarchical principle. Climate, territorial expansion, the mere physical comforts, exemptions from epidemics, immigration, are not the causes of vital movement."

In order to establish his proposition, our author begins by showing (or rather suggesting, for he does not take the time and space entirely to prove it,) that the unexampled progress and improvement of population in the United States has not been due to immigration; "that the ratio of increase has not been greatly influenced from this cause at any decennial period of enumeration."

He reminds us also that our pilgrim fathers settled the least favorable part of the continent, and that they were "preceded more than a century by numerous emigrants, aided by powerful armies and well appointed navies, all of whom were ambitious to conquer the effeminate and almost unresisting nations that possessed the new world, which teemed with all the elements of natural wealth and mineral treasures."

Yet it is notorious that their descendants have far outstripped those of their neighboring competitors for national supremacy, in all that constitutes a nation's greatness. In fact, they have gone on through generation after generation, prospering and to prosper, while their southern and less independent neighbors have been approaching more and more nearly to a premature decay.

"It could be shown," to quote again, "that the Caucasians of North America were not only few in number, poor, unsupported, but were exposed to the ceaseless hostilities of the most courageous savages known to history, whereby more than half the immigrants came to an untimely end; that North America is, I repeat

it, naturally inferior in extent, in fertility, in climate, in salubrity to South America. * * * * *

In the magnificent countries of South America, the cattle multiply as the sand on the sea shore, though food is in abundance, while man only is stationary or is declining."

It must occur at once to the reader, that there are many other scarcely less plausible ways of accounting for this striking difference in the rate and character of progress between the people of the respective portions of our continent. Dr. Dowler admits this freely; and whilst he tells us he has not attempted to meet all the objections to his theory, still he offers the facts he has noted, for what they are worth; and in so doing expresses the desire to know whether it is not true that " the monarchical principle (including under that term the hierarchy and the miscalled republicanism of the South,) has retarded the development of population." How the antagonistic principles may act, he does not pretend to say. His wish, for the present, is merely, if possible, to establish the fact.

In the course of the argument, many startling estimates are given in regard to the extremely slow advance, or the actual decline, of several South American States. These estimates afford us much curious information, and are well worthy of consideration, whether they convert us to the doctor's view or not.

Among other things entitled to especial note in passing, our friend makes it appear that " in three centuries, the entire Caucasian race in both Americas, south of the United States, has not equalled numerically that portion of the Union lying west of the Alleghany mountains, settled by the present generation amid the conflicts of prolonged savage wars with the bravest and most sanguinary nations known in all history."

But the researches of the doctor are by no means restricted to the great features of the progress of the New World only. He presents us with many striking comparisons drawn from the more reliable statistics of the European continent. Some of these would be doubtless read with interest by our readers, and it would give us great pleasure to exhibit them, together with a much fuller exposé and discussion of Dr. Dowler's course, both of reasoning and illustration; but the increasing length of the present notice reminds us of other equally important claims upon our space, and admonishes us that we must bring it to a close.

The author's mode of treating the whole subject, rich as it manifestly is in matter for reflection, seems to us much better calculated to arouse inquiry by its suggestive character than to satisfy by its conclusiveness. More than this is not to be expected from a tract of only twenty-nine pages, on a topic that might easily be made to occupy a volume. It is, nevertheless, a matter of regret, that in the haste to put forth his peculiar belief, and stimulate investigation thereupon, he has not spared the time to sustain his hypothesis with a precision and completeness more commensurate with the importance he attaches to its bearing at the present epoch.

We may derive consolation from the hope, however, that he will soon return to the discussion with renewed spirit and ability, as well as opportunity, to pursue it to the end; and we shall look the more earnestly on that account for the appearance of the large work on vital statistics, upon which we understand the learned author has been for some time past employed.

THE MEDICAL EXAMINER.

PHILADELPHIA, OCTOBER, 1849.

EPIDEMIC CHOLERA IN PHILADELPHIA.

The Board of Health of this city having presented their official report of the number of cases of cholera, and the deaths therefrom, during its recent visitation, we are now able to lay before our readers a comparison of this epidemic with that of 1832.

We would, at the same time, respectfully suggest to the editors of the various medical journals throughout the country, that a table of similar character, prepared by them, would constitute as a whole, an exceedingly valuable statistical account of the disease as it has recently visited us.

It must be premised, that there are certain sources of error that unavoidably find their way into the reports of our official bodies notwithstanding all the care that may be observed in their preparation. Among these it may be mentioned that many cases are not reported

at all; and on the other hand, that during the prevalence of such an epidemic, charlatans and irregular practitioners report everything as cholera, in hopes of extending their own reputation by spreading their marvellous histories of cures. Among the interments in our city, are likewise included those of bodies brought from the country. With these facts before us, then, it will be understood that the following account is merely the nearest approximation to the truth that can be obtained under the circumstances.

The first official bulletin was issued on May 30th, and the last on August 19th, the board of health having declared at the latter date that cholera was no longer epidemic. The whole period of its duration was 82 days, during which time there were reported 2131 cases, and 744 deaths, or one death in 2.86 cases. On the 14th July the greatest number of deaths occurred, viz., 32; cases 84; and on the 29th of July the greatest number of cases, viz., 90; deaths 24. The increase on the last date was owing to the violent breaking out of the disease in the Alms House.

During the months of May and June there were reported 278 cases and 97 deaths, or one death in 2.86 cases. In July 1566 cases, and 578 deaths, or 1 in 2.70. In August 277 cases, and 69 deaths, or 1 in 4.01 cases.

The whole population of Philadelphia, city and county included, amounts to about 350,000. This will give a ratio of cases to population of 1 to 164.24. The ratio of deaths to cases during the whole epidemic was 1 to 2.86 cases, and the ratio of deaths to population was 1 to 470.4 inhabitants.

1849.

Locality.	Population.	Cases.	Deaths.	Ratio of cases to population	Ratio of deaths to cases.	Ratio of deaths to population.
Philada.,	350,000.	2131.	744.	1 in 164.24	1 in 2.86	1 in 470.4
			1832.			
"	160,000.	2314.	754.	1 in 69.1	1 in 3.06	1 in 212.2

By a comparison of the above tables it will be seen, that while the whole number of cases and deaths was more than half less in 1849 than in 1832, the mortality was much the same in the two epidemics.

As in 1832, the epidemic was not confined to any one part of the city, but was extended to every portion. Yet strange to say, in many localities, where from the filth and depraved condition of their inhabitants almost entire depopulation was anticipated, it scarcely appeared at all.

The total number of cases occurring in private practice amounted

to 1439, the deaths to 386, or 1 to 3.7. In Hospital practice 692 cases, 357 deaths, or 1 death to 1.9 cases.

The following table shows the number of cases and deaths in the city proper, the districts, and hospitals.

Total of Cases during the prevalence of the Epidemic.

Districts.	Cases.	Deaths.
City, - - - - -	388	127
Southwark, - - - -	296	50
Kensington, - - - -	218	54
Spring Garden, - - -	108	33
Moyamensing, - - -	191	52
Northern Liberties, - -	147	38
Penn District, - - -	14	4
Richmond, - - - -	39	13
West Philadelphia, - -	22	11
Passyunk, - - - -	10	3
Residence not stated, - -	6	1
Hospitals.		
Cherry street, - - -	35	19
Pine street, - - - -	9	4
South street, - - - -	3	1
Southwark, - - - -	60	9
Kensington, - - - -	14	6
Spring Garden, - - -	—	—
Moyamensing, - - -	106	26
Northern Liberties, - - -	47	22
Penn District, - - -	—	—
Richmond, - - - -	13	3
West Philadelphia, - - -	2	1
Bush Hill, - - - -	26	16
Alms House, - - - -	314	229
County Prison, - - -	63	20
Coroner, - - - -	1	1
Total,	2131	744

The above statistics were obtained from the bulletins issued daily from the Health Office. The sources of error above alluded to, of course prevail here, making it exceedingly difficult to arrive at the facts of the case. In the following table, the total number of *interments** from cholera up to September 8th, is exhibited, amounting to 1012. During the epidemic, (that is, from May 30th, to August 19th,) the number of deaths from cholera, according to this report, amounted to 962. The discrepancy in this case is owing to the facts that daily reports were

* For this table we are indebted to Mr. Samuel Marks, Clerk of the Board of Health.

not made by many physicians, that several cases were reported by the coroner, and that some of the interments were of persons brought from the country and interred within the city limits, while no reports were made of their deaths to the Board of Health. It will be seen also, that deaths from cholera continued to be reported until September 8th, although the Board no longer issued bulletins, they not considering the disease to be epidemic, although it was endemic in certain localities, there having been in one block 15 deaths in the week, ending September 1st.

	Males.	*Females.*	*Boys.*	*Girls.*	*Under 1 year.*	1 *to* 2	2 *to* 5	5 *to* 10	10 *to* 15	15 *to* 20	20 *to* 30	30 *to* 40	40 *to* 50	50 *to* 60	60 *to* 70	70 *to* 80	80 *to* 90	90 *to* 100	100 *to* 110	*Total.*
1849																				
May 26 to June 2.	3											2	1							3
June 2 to June 9.	2	1									1	1		1						3
June 9 to June 16.	4	1									1	1		2	1					5
June 16 to June 23.	8	6		1				1			1	6	6							14
June 23 to June 30.	55	25	13	14	1			4	6	6	16	13	14	9	6	5				80
June 30 to July 7.	94	76	11	13		1	1	6	7	9	26	36	32	25	16	9	2			170
July 7 to July 14.	74	105	13	8			4	6	3	8	28	30	31	28	23	10	5	2	1	179
July 14 to July 21.	102	93	12	15	1	1	6	5	7	7	26	38	32	31	19	11	11			195
July 21 to July 28.	71	65	8	7	3		1	3	3	5	19	31	32	16	17	2	3	1		136
July 28 to Aug. 4.	52	43	7	7			7	4	1	2	14	22	13	18	12	2				95
Aug. 4 to Aug. 11.	26	14	5	2			4	1		2	5	15	6	2	4	1				40
Aug. 11 to Aug. 18.	23	19	3	5		1		5	2		9	7	11	4	2	1				42
Aug. 18 to Aug. 25.	10	6	1	2					2	1	5	6	2							16
Aug. 25 to Sept. 1.	6	12		1				1			4	7	4	1	1					18
Sept. 1 to Sept. 8.	10	6	2	3			3	2			1	3	3	2	2					16
Total,	540	472	75	68	5	3	26	38	31	40	156	218	187	139	103	41	21	3	1	1012
	1012		143						143									869		

The following table drawn from Dr. Jackson's report in February, 1833,* exhibits the number of deaths at corresponding ages, and the ratio of males to females.

AGES.		NUMBER OF DEATHS.
Under 1 year,		4
Between 1 and	2 years,	4
2	5	30
5	10	39
10	15	19
15	20	22
20	30	179
30	40	228
40	50	159
50	60	100
60	70	71
70	80	47
80	90	5
90	100	1
100	110	1

In relation to sexes the deaths presented the following ratio:—

	MALES.	FEMALES.
	539	370
Under twenty years	70	48

This report of the Board of Health includes only the well marked cases of cholera; but before, and during the continuance of the disease, affections of the stomach and bowels were unusually prevalent, a general irritability of the whole alimentary canal existed, which rendered it much more liable to disturbance from slight causes than in ordinary times. These mild attacks, usually yielded readily to prompt and early treatment, and in this way the number of cases and deaths was kept down to the present low figure. This condition of the animal economy throughout the whole community, was doubtless to be attributed to the operation of the epidemic influence upon them, and it affords abundant evidence of its wide spread existence among us.

We do not propose to enter into any detail of the symptoms, progress, pathology, or treatment of the disease, having already done tha in a previous number, (July,) and the latter department (treatment) having been ably discussed from time to time in the preceding pages. Our object is simply to present the *statistics* of the disease in Philadelphia to our readers, having done which our task is ended.

* Vide Amer. Jour. of Med. Sciences, Feb. 1833. Personal observations and experience of epidemic or malignant cholera in the city of Philadelphia, by Samuel Jackson, M. D., Assistant to the Professor of Institutes and Practice of Medicine and Clinical practice in the University of Penn'a.

OBITUARY.

It is with deep regret we learn the death of *Dr. J. P. Harrison*, of Ohio, one of the Editors of the Western Lancet, of *Dr. A. Brigham*, Superintendent of the N. Y. State Lunatic Asylum, and *Dr. John Butterfield*, Professor of Theory and Practice of Medicine in Starling Medical College, and Editor of the Ohio Medical and Surgical Journal. All were prominent and greatly respected members of our profession. The former will be remembered as having been one of the Vice Presidents of the American Medical Association at its last meeting, and as chairman of the Committee on Medical Literature. He died on the 1st of September, of cholera, after an illness of only a few hours. He was a man of most unbounded zeal, an industrious and faithful student, an honorable and high minded gentleman, and withal a Christian. In his editorial capacity he was ever courteous, dignified and impartial.

The name of Dr. Brigham has long been connected with the management and treatment of the insane. He was for a long time physician to Hartford Retreat, from which he was appointed to take charge of the N. Y. State Asylum at Utica, the organization of which he conducted. He was extensively known as the author of several admirable works, viz: *The Influence of Religion on Health; The influence of Mental Cultivation and Mental Excitement;* a work on *Diseases of the Brain;* and as Editor of the Journal of Insanity. The proceedings of the conventions of Superintendents of Insane Asylums teem with the fruits of his great experience, always characterized by strong good sense and philanthropy. He was a zealous advocate of Phrenology, which he greatly cultivated.

Dr. Butterfield had been failing in health for some time, but still continued his editorial duties, in the conduct of which he manifested singular tact and judgment. Under his fostering care the journal had steadily increased in favor and extension, and bid fair, though but of recent origin, to be one of the most acceptable and useful periodicals of the day.

From England we hear of the death of *Sir Charles Scudamore*, and *Dr. John Reid.** The latter was well known as the industrious author of the "Physiological, Anatomical, and Pathological Researches," as well as of numerous scientific papers which appeared at different times in the Journals. His published works speak for the manly vigor of his mind. He died at the age of 40 of cancer of the tongue. Those who

* London Medical Times.

have watched the progress of modern physiology will know that one of the brightest minds of the present generation has passed away.

SOUTHERN MEDICAL REPORTS.

From a circular lately received we learn with pleasure that *Dr. E. D. Fenner* proposes to publish an annual volume on the meteorology, medical topography, and diseases of the Southern States, an undertaking for which he is eminently qualified.

The object of this work, is to collect and present, in a *durable form*, the observations of physicians residing in different parts of the Southern States, with the view to the cultivation of medical science, and the formation of the medical history of the times.

It will consist of GENERAL and SPECIAL REPORTS; the first to contain concise accounts of the *meteorology, medical topography and prevailing diseases* throughout the year; the second will be devoted to *extraordinary cases, surgical operations, &c.*

These reports are all to be handed to the Editor, by the first of January, and will appear in a *neatly bound volume*, as soon thereafter as the work can be done. Each volume will also contain a brief retrospect of the latest discoveries and improvements contained in the Medical Journals of the year.

The cost of this work will be in proportion to the extent of patronage. It is contemplated that each volume will contain from *five to six hundred pages*, and will be furnished to subscribers at $3.50. One copy will be sent gratuitously to all contributors, and three or more copies to the authors of annual reports.

All Medical Societies within the above limits, are respectfully invited to send in condensed reports of their transactions during each year.

Publishers are requested to forward copies of all new medical books; in return for which, bibliographical notices will be given.

Medical Colleges throughout the Union, are requested to forward their annual circulars; from which will be extracted statistics, to show the progress of medical education. In short, the proposed work is designed to make up the medical history of the time, and to promote the cultivation of medical science in the Southern States. The Editor will do all in his power to render the work advantageous, as well to the collaborators as to the profession at large.

E. D. FENNER, M. D.,

New Orleans, La., June 1, 1849. *No.* 5, *Carondelet Street.*

☞ Due notice will be given when the work is completed, and it will be deposited at the principal commercial points in the Union.

MODE OF PRESERVING GUM ELASTIC CATHETERS IN WARM CLIMATES.

Two suggestions as to the means of preserving catheters, have been sent to us since the publication of the article on that subject in the last

number. One is to "coat them over with collodion," the other, to suspend them to a joist, enveloped as loosely as possible in paper, to prevent injury by flies, dust, &c. The latter plan has been found to succeed.

INCREASE OF THE CHOLERA IN EUROPE.

From the daily prints we glean the following items of intelligence.

The cholera was greatly increasing in England. The deaths for the week ending 8th ult., in London, were 7796, of which 1663 were of cholera. In Liverpool, the deaths by cholera were said to be greater, in proportion, than in any part of England.

In Dublin it was on the increase.

Several distinguished persons have died of cholera in Paris and in other parts of France.

Vienna and Berlin are at the present time suffering more than Paris.

At Berlin the deaths are more than forty per day.

Board of Examiners—Medical Department, U. S. A.

The following gentlemen will constitute the Board of Examiners about to meet in this city, October 15th: Surgeons Mower and Satterly, and Assistant Surgeon Southgate. There is another vacancy by a recent death.

RECORD OF MEDICAL SCIENCE.

PATHOLOGY AND PRACTICE OF MEDICINE.

Observations on the Neck as a Medical Region, on Trachelismus, and on Paroxysmal Diseases of the Nervous System. By Marshall Hall, M. D., F. R. S.—In my former paper I set forth the subject of what I ventured to designate TRACHELISMUS, and of its immediate consequence, PHLEBISMUS, as a principle of pathology at once newly detected, and of vast extent and importance. It embraces, indeed, more than three-fifths of the diseases of the nervous centres, as witnessed in private practice, constituting *the Class of Paroxysmal Diseases of the Nervous System*, one remaining fifth being inflammatory, and the other organic.

I now propose to proceed with my subject.

I will observe, in the first place, that the termination in *-itis* is become generic, and denotes the fact of the inflammatory character of disease.

I think a similar use may be made of the termination in *-ismus*, which may be applied to another class of diseases, not inflammatory. We have, in this sense, strabismus, laryngismus, pharyngismus, cheirismus, podismus, &c.

The term *trachelismus* may be used to express that paroxysmal affection of the neck, in which, the muscles acting inordinately, the neck is affected with opisthotonos, or becomes twisted, or otherwise contorted; whilst the subjacent veins are subjected to compression, and the blood flowing along them is arrested or impeded in its course—a condition which may be aptly termed *phlebismus*. The term phlebismus may be regarded as generic, and each kind of this affection may have its appropriate and specific designation; and whilst the term *sphagiasmus* denotes compression of the internal jugular vein, that of *rhachiasmus* may be used to denote that scarcely less important event of interrupted circulation in the rachidian or vertebral vein. The former will be henceforth associated with paroxysmal apoplexy, paralysis, mania, &c.; the latter with the epileptic seizure, and other convulsive and spasmodic affections, the cerebrum and the medulla oblongata being affected respectively.

Trachelismus and phlebismus constitute one of the most important events in *pathology*, and especially in the pathology of the nervous system. Induced by mental emotion and excitants of reflex action, they are, in their turn, the fruitful source of *congestion* in the *cerebrum*, or in the *medulla oblongata*, and of *cerebral* and *spinal paroxysmal diseases*.

There is no *order*, no *degree*, in which the muscles of the neck may not act, and in which the veins of the neck may not be compressed; there is no form of cerebral and spinal paroxysmal derangement—from a momentary oblivium or delirium to coma or mania—from the slightest spasmodic or paralytic affection to epilepsy or hemiplegia—which may not take place as consequences of that compression. Having the limits of these maladies clearly placed before our eyes, we may readily imagine or comprehend the intermediate forms, mild, and dire, and we are prepared for their immediate observation.

To trace these maladies from their faintest to their darkest shade—to trace them back to their causes, moral and physical, and onwards, to their dire effects on the intellect and on the limbs, of excitement or of stupor, of spasm or of paralysis, through trachelismus and phlebismus—is to engage in the investigation of one of the most novel, varied, and practically useful subjects in the domains of pathology. From mere sick-headache, to paroxysmal apoplexy, or epilepsy, this *Class* of diseases extends, occupying with its varied forms the lengthened interval.

A remarkable confirmation of these views is afforded by the phenomena presented by *Strangulation*. The moment the cord is tightened round the neck, *apoplectic* insensibility takes place; as a subsequent phenomenon, we have *epilepsy*, the tongue is protruded and bitten in some cases, and there are erection and seminal emission in others; *asphyxia* terminates the dreadful series of events. It will be plain, from what has been said, that we cannot concur with the eminent physician

of Edinburgh, that "strangulation, when the neck is not disclocated, appears to be simple apoplexy."

In slighter degrees of strangulation there are slighter effects, but amongst these there is always insensibility. In one case, a youth, on the eve of an execution, impressed with the terror of the coming scene, wished to experience the sensation induced by strangulation; and having so arranged a cord on a horizontal pole (the upper bar of a stile crossing a village foot-path) that it hung down loosely, he laid his neck gently upon it. Insensibility was produced, and the poor youth was found dead, having committed an undesigned suicide. The coroner for Middlesex has had frequent opportunities of observing the real suicide strangled in such a position that the slightest pain or irresolution might have led him to rescue himself had consciousness remained.

We remember the sad fate of the American diver, when he attempted to suspend himself, apparently by the neck, on Waterloo Bridge. The cord slipped, and really tightened round the neck: no attempt to save himself was made—no moment of consciousness remained.

A boy mentioned by Zitzilius, as quoted by Abercrombie, had drawn his neckcloth remarkably tight, and was whipping his top, stooping and rising alternately, when, after a short time, he fell down apoplectic. The neckcloth being unloosed, and blood being drawn from the jugular vein, he speedily recovered.

We are all acquainted, too, with the recorded phenomena of Thuggee: the kerchief is tightened, and consciousness, and every mental and physical power, are extinct in a moment. Similar effects have been observed in animals. The first Monro suspended a dog by a cord, excluding the trachea: insensibility was produced, but not asphyxia.

I was once witness to an experiment of Sir Astley Cooper. He compressed the carotid and vertebral arteries, as he thought, in a rabbit, with the thumb and fingers; I believe it was the jugular and vertebral veins; insensibility and convulsions ensued, and ceased with the compression of the veins.

There is another fact of the same kind. The horse is subject, when drawing against the collar, to what is termed the megrims, (hemicrania.) In one such case witnessed by my friend Mr. H. Smith, the external jugular vein, having been previously opened, burst out bleeding.

A more distinct experiment of Sir Astley Cooper is the following:—

"In one rabbit I tied the jugular veins on each side of the neck. When it was set at liberty, it ran about, cleaned its face with its paws, and took green food.

"Its respiration was reduced to 68 inspirations in a minute, which is about half the natural number. After four hours, it ran about as if nothing had happened, and eventually recovered.

"When it was killed and injected, I found on each side, three anastomosing veins passing from the anterior to the posterior part of the jugular veins, and conveying the blood from the head to the heart; but the vertebral vein had remained whole, and become enlarged; and it passed on the fore-part of the vertebræ, from the head to the space between the fourth and fifth cervical vertebræ, where it entered the vertebral canal.

"In a second rabbit I tied the jugular veins on each side of the neck, as before. The animal's respiration became slow; but it ate green food, ran about, and was difficult to catch; but for five days after it appeared dull; its ears had dropped. On the seventh day, it was seen to be convulsed, and frequently rolled over. Its voluntary powers were lost, as well as the sensation, in a great degree. On this day it died. On examination a clot of blood was found extravasated in the left ventricle of the brain.

"Hence, it follows, that apoplexy will occasionally result from an obstruction to the return of blood in the jugular vein; and this I have known to happen from enlargement of the glands in the neck of a boy."

To these observations I may add the following interesting extract from Abercrombie, to show at once the importance and the obscurity of the subject, previous to these inquiries. After having spoken of the effects of strangulation, and of the "numerous examples in which persons fall down suddenly in a state of perfect apoplexy, and very speedily recover under the appropriate treatment, without retaining a trace of so formidable a malady," he adds—

"The apoplectic attack, as it occurs in such examples as these, must be supposed to depend upon a cause which acts simply upon the circulating system of the brain, producing there a derangement which takes place speedily, and is often almost as speedily removed. *What the precise nature of that derangement may be, is a point of the utmost difficulty to determine.*" Abercrombie's philosophic mind felt, in all its force, the want of some such principle as it is the object of these observations to set forth.

I may now repeat the phenomenon of *blushing* is familiar to every one. Obviously the effect of emotion, I have suggested the contraction of the platysma myoides on the external jugular vein as the second link of the chain of causes and effects, and the impeded return of blood along this latter, as the third.

Let us imagine a similar condition of the *internal* jugular; there will be a state of *blushing*, in other words, of congestion of the cerebrum, with oblivium, stupor, or even apoplexy. Or let the vertebral vein be so affected, and a similar condition of *blushing* of the medulla oblongata will accrue, with varied spasmodic affections, such as strabismus, laryngismus, or even epilepsy. I have actually seen a state of recurrent *venous blushing* of the hand of an infant affected with convulsion.

If these veins be so affected, not singly, but conjointly, it is obvious that a more complicated result will take place; and thus venous lividity of the face and hands, is apt to be conjoined with the apoplectic and epileptic states, and these with each other.

If one part, or hemisphere, of the cerebrum be more affected than the other, we may witness a form of paralysis, which, as it usually ceases with the congestion, I have designated *paroxysmal*.

Or another *degree* or *locality* of the *blushing* of the cerebrum may lead to a paroxysm of mania.

A momentary unconsciousness,—cerebral epilepsy,—occurs from

modes of strangulation such as I have described as constituting trachelismus. I will only *allude* to the peculiar effect said to be produced on the sexual system,—spinal epilepsy,—by slighter degrees of strangulation.

A slight degree of trachelismus leads to the feeling of "strangulation," or of "constriction," or of "tightness," or "pressure," or "fulness," about the neck; for these and other phrases are used by patients.

In inquiring into these feelings, we must avoid leading questions, and make the patient express himself. "Do you experience anything unusual about this part?" (referring to the front of the neck generally,) is the only question I ever allow myself to ask. The reply to this is frequently of the most unexpected and interesting kind.

The subjects of trachelismus and phlebismus bring under our review the cases of paroxysmal apoplexy, paralysis, mania, and epilepsy, in all their shadowy and terrific forms. In their causes, their nature, their effects, and their treatment, they present to the physician a field of investigation, equally uncultivated hitherto, and prolific in results.

A chief cause is *emotion*. Such was the cause of the epileptic attack experienced by Henry Kirke White; and in general, I believe the mental agitation, the hopes and fears attendant on the examinations for honors at Cambridge, far more dangerous than the intellectual efforts previously made; and I would strongly and loudly urge on the Senate of that famed University (and others) some other, and better, and more continuous mode of judging, than the *one* fearful and dangerous trial now adopted.

A volume—and an instructive volume—might be written on the dire effects of the emotions and passions, in their varied kinds, in inducing trachelismus and phlebismus, and their results. Next should be investigated the effects of sexual excesses. And lastly, the effects of the excitants of spinal action, reflex and direct, should be traced from link to link through the fearful chain.

All these effects must be carefully distinguished from those of inflammation and of organic lesion, and the task of an accurate *Diagnosis* is not an easy one.

In my former paper, I observed, "It may be laid down as a principle, that there is no muscle—no set of muscles—in the neck, which may not become spasmodically contracted, singly, or conjointly with others: and that there is no vein in this region which may not, under the influence of such contraction of muscles, become compressed, and the course of whose blood may not consequently become impeded." "As a further consequence, there is no organ which delivers up its blood to such vein, which may not be the seat of congestion, and, if I may so express myself, of the apoplectic state." As a still further consequence, I may now add, that there is no paroxysmal affection of the nervous system, and especially of its *cerebral* and its *spinal* portions, however severe, however apparently slight, which may not result from this series of causes and effects.

This statement may be expanded into the different modes and forms of diseases of the nervous system, in their cerebral and spinal portions.

Hence we have stupor, oblivium, cerebral epilepsy, vertigo, headache, delirium, flashes of light, muscæ, flocci, dimness, amaurosis in every degree, tinnitus, and other noises, dulness, deafness; neuralgia and other morbid sensations; paralytic affections; hence we have epilepsy, and every kind, mode, and degree of spasmodic and convulsive affection.

So far the efforts of *trachelismus* are *paroxysmal;* they supervene on emotion or harass of mind, and on excited reflex action, and recede completely. But there is a limit to this complete recession. At length the recession is incomplete. The effects of the congestive state of the veins are more or less permanent, in the form, generally, of slight paralysis. What is the precise condition of the intermediate blood-channels? and of the minute arterial branches and venous roots? Do they yield and dilate, as we sometimes see minute ecchymoses on the face? Is their lesion of their intimate tissue? Is there effusion? Is there ramollissement of the adjacent cerebral or spinal tissue?

In a word, it has been admitted, from time immemorial, that mental agitation and passion, and deranged condition of the stomach, liver, bowels, &c., induce apoplectic attacks. I only attempt, for the first time, I believe, to set forth the *rationale* of this pathological phenomenon.

In doing this I establish a *Class* of *paroxysmal* diseases of the nervous system, cerebral as well as spinal; apoplectic and paralytic as well as epileptic and convulsive. I endeavor to fix the attention of physicians, and of patients too, on this, the *curable* stage of these dire maladies, before, from being merely paroxysmal derangement, they pass into permanent lesion of tissue.

This is *living* pathology as contrasted with the results of morbid actions as usually detailed in books, which are *dead.* If we read over the titles of each of the nine *Letters* of M. Lallemand, we find but a list of the capita mortua of the real and living disease. But what actions led to each of these? This is *the* one question, with those of the diagnosis and of the treatment, which interests the physician and the patient.

Inflammation and its causes; venous congestion and its causes; certain conditions of the vascular system or its contents—as anæmia, plethora, the effects of alcohol; the tuberculous diathesis, diabetes, albuminuria, a syphilitic taint, &c.; the seat of the disease in the membranes, in the substance of the cerebrum and spinal marrow: the character of the disease, especially as to its acute or chronic form, &c. I mention these circumstances to show how extensive a question that of the diagnosis is.

To return to the subject of trachelismus and of phlebismus, and of the paroxysmal affections of the nervous system, their effects, I must repeat that they exist in *two* stages; the first, that in which none but a functional change has taken place; the second, that in which physical lesion has supervened. The former case is the truly paroxysmal. These two conditions are coincident and commensurate with each other. As lesion supervenes, the symptomatic phenomena becomes more or less persistent; and here again the phenomena are proportionate to each

other. In the severest form of this affection, physical lesion, perhaps rupture, may occur at once. It may be apoplexy or hemiplegia.

It would be interesting to institute a comparative estimate of the importance of inflammation and of the congestive state to which I have adverted, in regard to the nervous system. I believe the latter to be the most frequent cause of disease of the *substance* of the nervous centres, and its effects to be frequently mistaken for those of inflammation, which is the most frequent, but not the sole cause of affection of the *membranes*, chiefly arachnitis. This statement must be left to future observation for development. The idea is big with conclusions of the deepest interest.

The specific effects of impeded venous circulation, whenever this occurs in external parts, are sure to be *two;*—first, dilatation, or the *varicose* state; and secondly, *effusion of serum.* We may suppose, until further investigation has confirmed or corrected this view, that similar events occur in the nervous centres, leading to irritation or lesion of their structure. Rupture, or softening of their substance, may follow if the proper remedies be neglected.

I now proceed to discuss briefly the subject of the treatment.

The causes—all mental emotion, agitation, passion, must be most carefully avoided; all sources of gastric and intestinal irritation must be removed.

I believe the most specific preventive to be systematic walking exercise, and especially a pedestrian tour.

I am convinced that I have seen the best effects from a light mercurial conjoined with ipecacuan and squill, and an aperient, taken so as gently to effect the mouth and act on *all* the secretions and excretions, the mercurial cachexia being prevented by air and exercise.

The head should be kept cool by a lotion, consisting of one part of alcohol and three of water, the feet guardedly warm and dry.

Sinapisms should be applied to the nape of the neck, extending to behind the ears. Dry cupping, and cupping with simple or crossed incisions, and with the detraction of the appropriate quantity of blood, have proved most useful.

But this is rather the treatment of the permanent effects of congestion. The most important treatment consists in avoiding the exciting causes of trachelismus, and its effects. It is obvious that, if we would save the brain, and save the intellect and limbs, we must deplete the veins?

We may now resume our subject, and observe that what shame does to the face, neck, and breast, through the contraction of the platysma myoides on the external jugular, other agitations and passions, and excitants of reflex action, effect on the cerebrum and medulla oblongata, or both, by the compression or obstruction of the internal jugular or vertebral. The former is *seen*, the other is *deduced* from the symptoms, consisting of paroxysmal, cerebral or spinal seizures. If repeated, the cerebral or spinal veins, or the intermediate blood channels between these and the arteries, become dilated or varicose, or yield an effusion of serum, whence persistent forms of the same diseases. Of these effects, the first should be subdued, the second should be averted, by timeous, that is, prompt, and effectual *cupping*.

In conclusion, I beg to observe, that I have not in these observations even attempted to avoid the repetitions which my reader will doubtless observe. I believed the importance and novelty of the subject justified them. In a THIRD SERIES I propose to treat chiefly of a parallel between *Inflammation* and *Congestion* of the Nervous Centres.—*London Lancet.*

OBSTETRICS.

Intra-vaginal Respiration recommended in some cases of Parturition where the Child's Life is in Danger from Pressure on the Cord. By M. McCULLOCH, M. D.—The writer desires to make known a new mode of practice, by which he thinks that the amount of infant mortality will be lessened in many cases in which death, from pressure on the cord, is otherwise inevitable. "If we take the average of French, German, and British practice, we find by the most authentic statistics that danger to the life of the child from this cause occurs in breech presentations once in 53 labors; in presentations of the superior extremities, after turning, once in 261; and where the cord presents, once in 245 cases. Thus we have in 649 labors 12 presentations of the breech, 7 of the inferior extremities, 2½ of the superior extremities, and 2½ of the cord, occasioning a loss of life at birth of about two per cent. of all children born. This great mortality I think I have succeeded in diminishing in my own practice in three footling cases within the last eight months, by enabling the child to breathe while the head was still within the cavity of the pelvis, after the pulsation in the cord had been several minutes extinct. And this novel state of existence was maintained by keeping the child's mouth open with my finger, and the perineum expanded to allow air to have free access into the vagina. In future, I shall endeavor to accomplish this object with greater certainty by introducing into the mouth the end of the largest-sized gum-elastic male catheter, with several perforations in it, and continue as before to allow as much air as possible to approach the face and nostrils. In all cases of malposition in which the practice I have suggested becomes desirable, the chance of respiration being established will be greater, if the means are used before the circulation becomes feeble in the umbilical vessels; and if the child is born alive in the absence of pulsation in them, it may fairly be conceded that we have been successful in our efforts to preserve life. Some cases may occur where a small-sized male catheter, with a suitable curve, might be used with advantage as a tracheal pipe. I need scarcely add that the infant's body should be kept warm, gentle traction employed, and all the other ordinary means of exciting contraction of the uterus used until the delivery is completed.

"If the practice I have here recommended is found to answer in other hands as it has in my own, something will have been achieved in obstetric science, in circumstances where the most skilful have hitherto frequently had to lament their inability to save the child's life."—*British American Journal*, May, 1849.

The above, it will be seen, is announced as a new mode of practice by Dr. McCulloch. By reference to the New York Journal of Medicine for May, 1844, a paper, written by James Couper, M.D., of New Castle, Delaware, will be found, in which a similar practice is recommended, as represented by the following case:

Case.—Mrs. F., having over-exerted herself, was delivered of twins at the end of her eighth month. The labor was slow, but not remarkable in any respect. The first child was a breech presentation, the spine being directed to the left acetabulum of the mother. When the head came to pass the superior strait, the cord was compressed by it, while the expulsive pains became less active than they had been. Soon after this, the pulsation of the cord ceased entirely; the usual convulsive struggle of the child followed; and then all was still. What was to be done in such a case? The spine of an eight months' child would not safely bear the force necessary to an immediate extraction. There was not time for the action of ergot. The face was not yet low enough readily to allow the fingers to be placed at the sides of the nose, that air might have access to the mouth. Nor would the *mere presence* of air have availed, for the child had already become still. In this state of things I executed a plan I had before determined on, and for which I had prepared myself, namely, to *inflate the lungs*, without attempting to extract the child by force. For this purpose I introduced my left forefinger, and with the point of it drew down the chin. Then, using the finger as a director, I passed one end of a long elastic tube, one-fourth of an inch in diameter, well into the mouth, and taking the other end into my own mouth, I blew briskly through the tube two or three times, and immediately had the satisfaction to see respiration established. Muscular efforts followed, and as these stimulated the uterus to stronger contractions, the labor soon came to a happy conclusion. The tube was kept in the mouth of the child until delivery was accomplished.

In commenting upon this case, the then editor, the late S. Forry, M.D., remarks:

"That it is possible for two men to make the same discovery in different ages, or in different countries of the same age, without any knowledge of each other, is sufficiently proved by the fact that, among the ruins of Herculaneum have been discovered surgical instruments, which, thus lost to the world, have been again invented in recent times. The same, it would appear, has happened to our correspondent. In the American Journal of the Medical Sciences, for 1829, Vol. IV., p. 285, is an article by Jacob Bigelow, M.D., Professor of Materia Medica in Harvard University, entitled, '*On the Means of Affording Respiration to Children in Reversed Presentations.*' Referring to the fact that, in those cases of labor in which the body of the child is delivered before the head, many children, which are alive when the body is expelled, are irrecoverably lost in the hands even of the most skilful practitioners, before the head can be extracted; Dr. B. says that the object of his paper is to show that the life of the child, under these circumstances, may often be saved 'by forming a communication between

the mouth and the atmosphere, previous to the delivery of the head.'" Dr. Bigelow proceeds:

"The method to be pursued in conveying air to the mouth, depends upon the situation of the head. If the chin has descended low in the pelvis, so that the mouth rests upon the perinæum or lower part of the sacrum, and can be readily reached by the fingers, the hand of the operator alone is sufficient to give the assistance required. But if the mouth is situated so high in the pelvis as to be reached with difficulty, or if, from the large relative size of the head, there is much compression, the assistance of a tube may be of use. The mode of proceeding which I have found successful in various instances, is as follows: as soon as the body and arms are extracted, supposing the face towards the sacrum, an assistant supports the body, carrying it towards the pubis; or the reverse, should the position of the face be to the pubis. The accoucheur should then introduce the hand to which the face looks, till the middle fingers rest upon the mouth of the child. The hand is then to be raised from the throat of the child, making the ends of the fingers a fulcrum, and pushing the perinæum backwards. The air will then pass upwards as far as the chin of the child. The middle fingers are now to be separated about half an inch from each other, and thus a complete passage will be formed between them, by which the air will reach the mouth of the child. If the child be in a healthy state up to this period, it will immediately breathe and cry, and the delivery of the head may be safely postponed until the natural pains recur. If, from any degree of asphyxia, the child does not immediately breathe, it may be often made to do so by dashing cold water upon the body, or by other stimulating processes. It has even appeared to me practicable *to inflate* the lungs, in some cases, *through an elastic catheter*. When the mouth is so high in the pelvis as to be reached with difficulty, or when the compression is so great as to obliterate the cavity between the fingers, a flat tube will be found useful, made of metal, of spiral wire covered with leather, or of elastic gum, and having its largest diameter about half an inch. If the tube be of metal, or of any incompressible material, it should be withdrawn during a pain, to prevent contusion of the soft parts, and immediately replaced, if the pain subsides without expelling the head. Such a tube may be considered as a prolongation of the trachea, and is sufficient to sustain life by respiration for a considerable time. The tube must be guarded and directed by keeping it between the fingers of the inserted hand."

Among the cases given is the following:

"Case V.—After the birth of the body, the face was found so strongly pressed against the sacrum, as to render it difficult to form a passage for the air. By a gentle extractive force, the head was made to descend lower in the pelvis, *and a tube was placed in the mouth.* The child in this situation respired, and, after a few minutes, with the assistance of a pain, the head was easily extracted."

This, it appears, is an old practice, though it seems to have been lost sight of by nearly all our later writers on midwifery. Hence we have deemed the above article worthy of a place on our pages, while its author has all the merit of an original invention.

Dr. Bigelow refers to Pugh's Treatise of Midwifery, published in 1754, which recommends a practice virtually the same.

"The arms being brought down, the head only remains to be extracted, which must be done with as much expedition as possible, as indeed the arms ought to be; for when the child has passed the navel, the circulation between it and the mother is stopped, from the pressure of the umbilical rope. You must then introduce the fingers of your left hand into the vagina, under the child's breast, and put the first and single fingers into the child's mouth, pretty far, so far, however, that you are able to press down the child's tongue in such a manner that by keeping your hand hollow, and pressing it upon the mother's rectum, the air may have access to the larynx, you will soon perceive the thorax expand, as the air gets into the lungs. Many authors make very little trouble in extracting the head, but without a well formed pelvis, every operator must know there is difficulty and great danger of losing the child by its stay in the passage; but by this method of giving the child air, I have saved great numbers of children's lives, which otherwise must have died.

"'Before I made use of this method, and pressing externally to assist in extracting the head, I found many children were lost in this situation for want of air, which put me upon inventions; as likewise a third, *which was a curved flattish pipe, as likewise a flexible one, that I introduced into the child's mouth as near to the larynx as I could, the other end external,* which I found answer, but now as I find my fingers generally answer, I seldom make use of it.'"—Page 49-50.

As regards the introduction of the fingers into the child's mouth, and thus pressing down the tongue, the direction would seem surperfluous; for, unless the child makes a natural effort to inspire, when the air is brought to its lips, the entire operation will necessarily prove futile. Here Dr. Couper's mode of blowing through the tube would act admirably.—Editor.]

From this it will be seen that the practice recommended by Dr. McCulloch is not original with him, the same idea having occurred to two others previously. In the case related by Dr. Couper, it is very certain that the *mere presence of air* would not have been sufficient.—Eds. Medical Examiner.]

ANATOMY AND PHYSIOLOGY.

Lectures on the processes of Repair and Reproduction after Injuries. Delivered at the Royal College of Surgeons of England. By James Paget, F. R. C. S., Professor of Anatomy and Surgery to the College.

LECTURE I.

Mr. President and Gentlemen,—There are many considerations which would have led me to choose that which has been announced as the subject of these lectures; but the chief of them was, that the preparations in our Museum which illustrate these processes, are next in

order to those that suggested the subjects of two former courses ; while another reason was, the advantages which might result from such a course, as supplemental to those of my colleague, Professor Owen. My mind would gladly stop for a moment in contemplation of those perfect works of nature of which he has discoursed, and with reluctance turn from them to the consideration of the losses to which they are subject, and to processes of repair which they undergo. Yet, in considering the power here exerted, we shall find that it is the same which is seen in bringing to perfection the impregnated germ. For we cannot form a just conception of the nature of these processes, unless we admit that in each perfect organism some measure of that power is exerted which operated to produce the germ. I shall, therefore, ask your permission to occupy the time of this first lecture chiefly with the consideration of this principle. It is not a new doctrine, for the theory of *nisus formativus* of Blumenbach, and that of Müller, might be expressed again in nearly the same words as I have used ; and yet some excuse seems to be necessary for arguing now that such a doctrine should be received. For the general tone of modern physiology is opposed to it, and of late years, especially, the cell-theory of Schleiden and Schwann, and the seeming accuracy which the progress of organic chemistry has given to our notions concerning assimilation, appear to have satisfied most physiologists that we have, in these, sufficiently good hypotheses for the explanation of the maintenance of the body, by nutrition. If it were so, we might need no other hypothesis for the explanation of repair and reproduction ; but I think, that both in these, and in the processes of common nutrition, a power is in exercise which is not admitted by the cell-theory, or by organic chemistry—a power continuous with that manifested in the germ, and acting in all essential things like it.

The characteristic property of an impregnated germ is, that when placed in favourable circumstances, all the materials of which it first consists, and all that it appropriates, are developed according to the same method as was observed in the developement of its progenitors. Among all the marvels of the laws of developement that my colleague has detailed, none, I think, appeared more marvellous than the seeming tenacity of purpose with which each germ passes on to the perfection of its specific form. However vast its power of multiplication and increase—however various its metamorphoses—however near some may approach the perfect characters of another species—or, however much alike all germs may be in their first stage,—yet, through all these things, each germ, self-impelled, passes on to the formation of a being like the parent.

The constancy of this result justifies the expresion, that every impregnated germ has, in itself, the power to develope itself into the perfection of an appropriate specific form from the materials of which it consists, and this we may call the "power of the germ," or "germ-power."

Now, there are certain characters marking the mode in which the germ developes itself; and by these we may determine the difference between the operations of the germ-power and that of any other process in the living being.

The first characteristic is the limits it has to observe. As surely as the germ tends always to the attainment of perfection, so it is strictly limited to certain rules of time, and space, and mode of progress. The germ rarely falls short of its designed form, but it never goes beyond it,—no creature is known to attain by developement a higher specific form than its parents had; and the differences of size, to which by growth the different individuals of a species may attain, are circumscribed in narrow limits. So, too, are the length of life, and, in narrower limits still, the periods and methods of developement. Perfection, whether in the whole body, or in any of its parts or tissues, seems to be attainable only through certain forms appropriate to each species; and from which, if it deviates, it never attains that specific form. then, wherever, this obtains, we may suppose a power is in operation like that of the germ power.

Secondly, it seems to be characteristic of the power of the impregnated germ, that it has the capability of subordinating to one design a number of concurrent but different processes. It is only in few and trivial instances that we can regard the developement of one part as the consequence of the developement of another. They are independent agencies. Thus, the primordial heart and blood-vessels of the embryo together, proceed in regular progress, but quite independent. There is also a concurrence in the developement of each of the several parts of a limb; yet each limb, and each part is developed independently. And, again, when a new roof of blood-vessels is to be effected, it is manifest that there must be concurrent developement of both, in order that they may exactly meet and coalesce; but the developement of the one is in no sense a consequence of the developement of the other. The process of combining material thus is so characteristic of the power of the germ, that wherever it is manifested, we may use it as a test of the germ power.

The third characteristic is, that it is developed in all its parts without the presence of any model. And here the power of the germ is different from that seen in the processes of assimilation; for here all the materials are formed after the pattern of the part in which it is inserted; it is supposed, that the plasma around it or near it takes the same form. Now, in the germ, the several parts may exist; but, none of them as a rudiment or model, and no single part is formed in precise imitation to the one already present. If, then, in subsequent life, we find instances in which parts are developed into definite forms, but still distinct parts, we may assume that it is so by the same power that was exerted on the impregnated germ. Here we come to the common doctrine of the maintenance of the body by nutrition. The physiological doctrine seems to be, that each structure in the body has the power of taking from the blood certain appropriate materials, and of assimilating themselves to it; or else, that it produces cytoblasts or germinal centres. Thus:—1st. That each part of the body has the power of abstracting materials from the blood, of assimilating themselves to it, and incorporating themselves into its structure—the power of giving life to that part which is amorphous. 2d. That each part gives off that which may serve for the developement of another part like it, and which may fill its office

Doubtless, both these may be proved to be in operation; for example, we may prove assimilation by this,—that any change which has passed from the blood may be maintained in that blood, although all the parts may be renovated. Thus, the poison of small-pox being inserted into the blood, poisons the whole of it; and yet the blood is not as it was before; for now it is no longer amenable to that which before disturbed it. Here we have a proof of the assimilative force in the blood; for there is no other mode of explaining this fact, which shows that a part attacked by disease is no longer what it was before, except by admitting that the blood has the sole power of assimilating all new particles which are formed after such disease; all the blood is formed according to the altered model. And so we explain the force exerted in the succession of developements of tissue-germs, as in the case of the teeth. As the first tooth is developed, we recognize in the capsule all the material necessary for the developement of the second; and so of the hair,—each hair pulp and capsule gives off another germ which serves for the developement of its successor; and it is clear that this same power is exerted in the living body;—so there can be no question that in the living body there is constantly exercised a power of assimilation, so that the new material may take the characteristics of that into which it is to be inserted.

Still I think such forces are not sufficient for the maintenance of the body in its perfection; and that, even where they do tend towards that end, they act in subordination to that power which we recognize as determining the impregnated germ in its developement. For, in the first place, there are many instances in which new structures are formed for the maintenance of the body, where there is no model according to which the new matter may shape itself, nor any parent-cell from which a re-producing germ may spring. Such are all the instances of formation for which, in a former course of lectures, I suggested the term of "nutritive repetition," to distinguish them from the examples of nutritive reproduction such as I have just mentioned. I then took, as an example, the different modes in which sets of teeth may succeed each other, the human second tooth being formed by materials given off from the capsule of the first; but in such jaws as the shark's, in which we see row after row of teeth succeeding each other, the row behind is not formed of germs derived from the row before, but the front row is repeated in the second, the second in the third, and so on. And again, in another class of cases the new blood-corpuscles, that are being constantly formed for the renovation of the blood, are not developed from germs given off from the old ones; neither are they formed by any assimilative force exercised by the old ones. The development of each is an independent repetition of the process by which the first was formed. And so with the successive developments of ova and epithelial cells, and many others,—each is developed independent of the rest, and each repeats the changes through which its predecessor passed. These are only examples of a large class of cases; and, numerous as they are, the theory of nutrition by assimilation, or by the development of successive cytoblasts, is inapplicable to them all. But even in instances in which we are quite sure of the operation of an

assimilative force, or the existence of cytoblasts or tissue germs, we must also admit that these are controlled by the same power derived from the embryo germ. I will adduce but two examples. I have mentioned the persistence of alterations once produced by disease in the blood or any tissue; but we know that after a time these alterations are often obliterated, and the blood may so return to its perfect state as to be again amenable to the influence of poison. By what power? Certainly not by that of assimilation. It must produce the same image. By what power, then, is the natural state restored? Surely it must be by the operation of the germ power, which was for a time subjugated, but which now again brings the diseased part to the same condition as it would have been in, had no morbid change been effected in it. Again, we speak of the germs of tissues as enough to explain the formation or reproduction of the second tooth, and the successive generations of hairs, of muscular fibres, and some other tissues. But, to take the second tooth for an example of this class of cases; it is not like the first, from whose formative organs it derived its germ, but like the corresponding second tooth of the parent. What, then, determines the difference? Not, surely, the independent power of the germ or gemmule derived from the sac of the first tooth, for it is the essential character of germs to imitate those forms from which they sprang. On the whole, then, since we see that the continued mutation of particles for the growth and maintenance of the living body by nutrition manifests, in all essential things, the peculiar features that characterized the first formation of the same body from the germ, we seem justified in holding that it is one and the same power which, being maintained continuously from the germ to the latest period of normal life, determines all organic formation.

If what has been said appear sufficient to prove the operation of the germ-power in the ordinary maintenance of the body, absorbed or cast off at the term of their natural life, then more than sufficient evidence for the same opinion will appear in the phenomena of repair and reproduction after injuries. These, occupying, as it were, a middle place between the phenomena of embryonic development and those of ordinary nutrition, have of late been alternately, or in different instances, referred to one or the other of the different powers by which these phenomena are supposed to be governed. But, probably, the likeness of the phenomena of reproduction to those of both nutrition and embryonic development should have suggested that the three are accompanied by manifestations of one and the same power. That they are so, will be evident, I think, in what I shall have to describe in the following lectures, namely, that repair and reproduction cannot be in any case explained as the result of assimilation or by the succession of tissue-germs. And, secondly, if we watch the manner in which the recovery is achieved, we shall discern in it all those characters which mark the operations of the power of the germ; that in this re-formation there is an independent, though concurrent, development of many parts, and that the whole process is limited by the same restrictions of time, and space, and exact method, as those observed in the original development of the parts.—*Medical Times.*

[To be continued.]